Levri Ardiansyah

The Origins of Administration

The Foundation Stone of A New Science

2017

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2017

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Acknowledgment

In writing this book, the author has been fortunate to have colleagues who made such positive comments concerning the content of this publication. His thanks also go to all his friends for their substantial supports to this book. Finally he want to thank his beloved family, to whom this book is dedicated.

About the Author

Levri Ardiansyah (Indonesia, 1972) is a lecturer, researcher, bilingual poet (Indonesian and English) and author. He has authored numerous books on philosophy and administration, among them are the 2014 book 'Cooperative Human Actions; Menelusuri Jejak Interrelasi Manusia Primitif', ISBN 978-602-9238-55-6; the 2016 book 'Induction of Science of Administration', ISBN 978-602-439-016-7, the 2016 book 'Bumi yang Padu', ISBN 978-602-439-035-8; and the 2017 book 'Earth and the Laws of Association'.

Levri has been appointed lecturer since 1999 at Department of Public Administration, Faculty of Social and Political Science, Universitas Padjadjaran. He taught several subjects, including 'Basics of Administrative Science'; 'Introduction to the Study of Public Administration'; 'Communication and Public Relations'; 'Public Policy'; and 'Civic Education' (certificate issued by the Lemhannas RI (the National Resilience Institute of the Republic of Indonesia).

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Foreword

The draft manuscript titled 'The Origins of Administration' I wrote in 2016 while I was writing a book entitled 'Earth and the Laws of Association'. Tracing the origins of administration turns out to not be based solely on the source of the word 'administration', because (1) there is a history of administration that I must perceive the context, content and circumstances that are unique to administration; (2) must also know the changes and variations of the root word 'administration' based on philology and its use in several kingdoms and countries; (3) there is a change in the meaning of the word 'administration' which can be identified based on changes in the administration paradigm and the perspectives of experts from various disciplines on administration; and (4) the importance of understanding the origins of administration based on philosophical thinking about administration.

Tracing the origins of administration also cannot be enough to find the essence of administration in the form of the history of the name 'administration', special characters, and real characteristics of administration. There is the cause that must also be explained through the answer to the question 'What causes the source of the word 'administration' to be interpreted as administration?'. For this, a description of the substance of administration is very helpful, namely a description of the present and past administrative systems, as well as administrative elements and administrative functions based on paradigms, perspectives and philosophical thoughts. In this way, it can be explained the basic differences in administration to other related sciences through a clear difference in the origin of each science. Apart from this, it can also be explained about what is not administration, so that a description of the origins of administration will serve as a guide for writing a follow-up book on the definition of administration, the composition of administration and a guide to answering the question of fact in the form of the question 'What is administration?'.

With all the limitations and weaknesses in my body and soul, I present this book to enrich the study of administration and to start the scientific recognition that administration is a separate science, namely Administrative Science. I can only read even though I stumble and try hard just to be able to write, that's why this book exists. Hopefully this book is useful for Administrative Sciences. Thanks God, without You there would be no administration.

Banten, December 31, 2017

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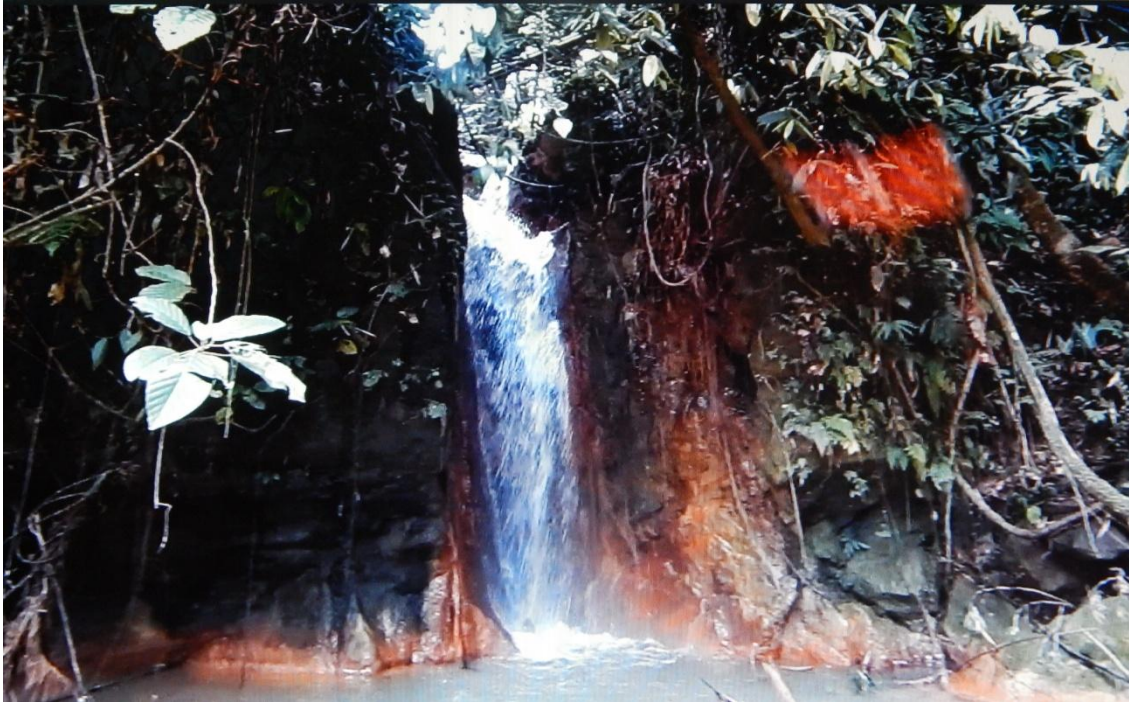
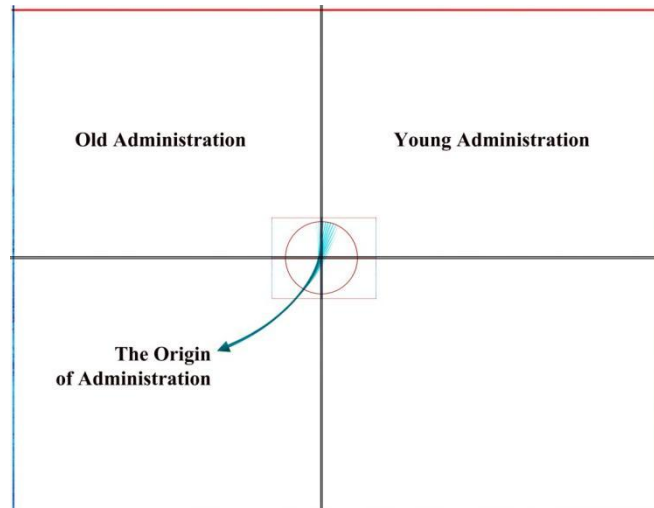
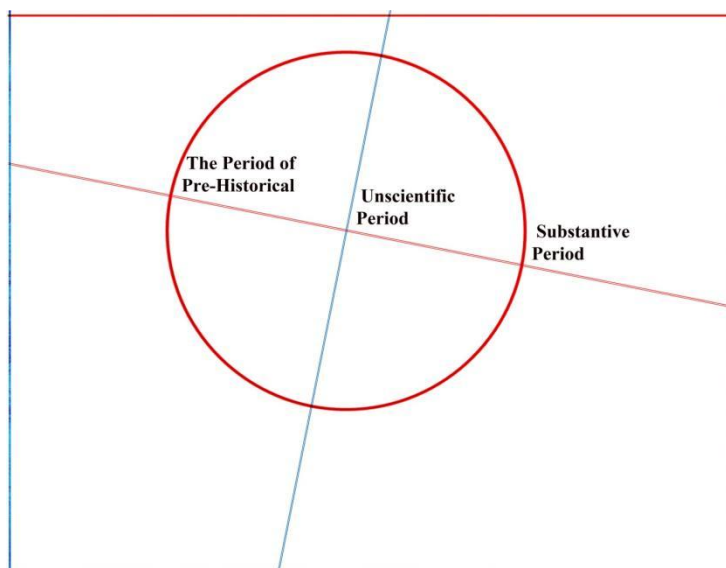
Introduction

Air terjun ini sungguh indah, bak bidadari surga yang ada di Bumi. Seringkali terlihat seperti seorang ratu bermahkota dengan gaun putih kebiruan. Tangan kanannya yang gemulai terangkat menyibak gaun seakan menunjuk untuk memberi petunjuk. Pada sisi kiri dan kanan tampak dinding batu licin berwarna jingga keemasan. Terjunan airnya being jernih, hanya pada saat tertentu saja terjunan air tampak kemerahan. Ini pun jarang terjadi. Meski sudah berkali-kali saya mendatangi air terjun ini, tak pernah bosan memandangi indahnya panorama air terjun. Padahal bosan adalah pembeda manusia terhadap malaikat maupun setan, karena kedua makhluk ini tidak memiliki rasa bosan. Saya seakan tak lagi menjadi manusia, karena rasa bosan tak hadir saat menatap indahnya air terjun ini. Terlebih pada 23 Maret 2014, sekira 30 menit saya terduduk terpana diatas sebongkah batu dekat curahan air terjun pada kali. Sinar matahari yang semula tepat berada diatas kepala, menyinari kening dari celah dedaunan menyadarkan saya untuk segera mandi. Hari itu saya memang berniat untuk mandi di kali air terjun pada tengah hari. Biasaya saya selalu mengunjungi air terjun ditemani sesepuh desa maupun tokoh adat, tetapi hari itu tak satupun dari

mereka yang mau menemani, malah mempersilahkan saya mandi seorang diri. Entah mengapa.

Saat duduk terpana, saya melihat ke atas air terjun sambil bertanya pada diri sendiri, ‘Dinamakah sumber air terjun ini?’. Pertanyaan yang sesungguhnya merupakan pertanyaan tentang *the origins of springs* yang setara dengan pertanyaan tentang *the origins of administration* yakni ‘Dimanakah sumber kata ‘*administration*’ dan berupa apa?’. Tidak hanya mengobservasi tepian kali hingga menemukan sumber mata air, namun saya juga harus mengetahui sejarah lokasi air terjun ini agar saya dapat menjawab pertanyaan (1) ‘Apakah kondisi air terjun saat ini alamiah ataukah *human made’?* dan (2) ‘Hingga batas mana saya dapat menelusuri sumber air terjun ini? Apakah cukup pada mata air yang terdapat di atas bukit? Ataukah harus menelusuri hingga sumber *groundwater* dibawah Pohon Bungur*?*

Menelusuri *the origins of administration* sama juga seperti menggali akar pohon Bungur. Meski akarnya yang saya cari, tetap saja saya harus memulai mengobservasi pohon Bungur secara keseluruhan sebagai *full-grown tree* termasuk mengobservasi pohon Bungur muda (*the young plant*) dan bibit benihnya (*the seed-germ*) bahkan harus meneliti hingga ke inti sel. Dalam konteks Ilmu Administrasi, menelusuri *the origin of administration* berarti mencari akar kata ‘*administration*’. Berasal dari bahasa apakah sumber kata ‘*administation*’ ini? Pertanyaan yang jawabannya tidak berhenti pada temuan akar kata semata, melainkan konteks dan konten yang terkandung pada bahasa sumber akar kata yang bisa jadi lebih dari 2 bahasa. *The languages are not born, but transformed* (Toynbee, Paget, 1896: v). Oleh karena ini, penelusuran akar kata ‘*administration*’ dan sumber bahasanya tak dapat saya lakukan tanpa mempelajari *philology* yang memang merupakan ilmu khusus menelusuri ‘*the law of these transformations, the instruments at its disposal being history and comparison*’. Dengan mengetahui *philology* saya dapat mengerti perubahan yang terjadi pada akar kata ‘*administration*’ sebagai dasar untuk saya menjawab pertanyaan ‘*Why did it happen?*’ dan ‘*How did it happen?*’. Bukankah mengetahui Ilmu Administrasi saat ini namun tak tahu sejatinya administrasi dulu kala, ibarat pohon tanpa akar? dan hanya mengetahui administrasi dulu kala tanpa jelas transformasinya, ibarat pohon tak beranting tak berdaun. *Young administration without Old Administration is a tree without roots, while Old Administration without its transformation is like a tree without branches or leaves.*

Saat saya mulai mewawancarai tokoh masyarakat dan tokoh adat yang saya nilai mengetahui sejarah air terjun, pertanyaan tentang sejarah air terjun yang saya tanyakan harus saya cari jawabannya pada fakta, sehingga saya dapat menjelaskan fakta air terjun berdasarkan sejarahnya (*facts which can only be explained by the history of this waterfall*). Inilah fase tersulit yang saya harus tempuh saat menelusuri *the origin of administration* yang faktanya tidak jelas adanya. Sejarah apa yang dapat saya jadikan landasan untuk menjelaskan fakta adanya Ilmu Administrasi jika fakta Ilmu Administrasi tidak ada?. Bukankah *the history of administration is an archive of administrative facts?* Untungnya ada bahasa sumber akar kata administrasi yang dapat menjadi petunjuk adanya *actual form of the word 'administration'* yang harus saya analisis berdasarkan *a priori* yakni *pure reason and logic* (Toynbee, Paget, 1896: vii).

Sejarah kata '*administration*' yang dapat terjelaskan berdasarkan *philology* harus saya padukan dengan analisis perbandingan (*comparison*) praktik administrasi pada 2 atau lebih kerajaan dulu kala. Pada buku karya Toynbee, Paget (1896: ix) berjudul '*A Historical Grammar of French Language from the French of Auguste Brachet'* (Oxford: The Clarendon Press) tercetak '*With history, regarded as an instrument of philology must be associated a valuable ally, comparison. It is by the aid of comparison that theories are proved and hyphoteses verified*'. Tetapi, penelusuran *the origin of administration* tak dapat terbatas pada sejarah, bisa saja *the origin of administration* masih dapat ditelusuri hingga pada batas temuan benda fisik tak bertulisan huruf. Jika berdasarkan sumber kata '*administration*', maka batas waktunya dapat diketahui berdasarkan *etymology*. Jika berdasarkan substansi administrasi, maka batas waktunya tentu

menembus hingga masa pra sejarah, yakni pada masa adanya bukti temuan ilmiah yang dapat diinterpretasi sebagai adanya petunjuk substansi administrasi. Pertanyaannya, hingga batas waktu kapankah penelusuran *the origin of administration* dapat saya lakukan ?

Meski penelusuran *the origin of administration* amat tergantung pada sejarah sumber kata '*administration*' dan karenanya akan banyak pemaparan berdasarkan *etymology,* namun buku ini tentu bukan buku *etymology* kata '*administration*'. Tujuan penulisan buku ini adalah pemaparan *the origin of administration* berdasarkan asosiasi yang memadukan berbagai koneksi sejarah bahkan tembus jauh sebelum sejarah itu ada, berdasarkan koneksi berbagai keilmuan, baik *etymology,* politik, ekonomi, sosiologi, antropologi maupun ilmu pasti yang terkait. Oleh karena ini, sinkronisasi adalah satu dari beberapa kata kunci pada proses penelusuran *the origin of administration.* Dengan begini, saya harus mempersepsi sejarah kata '*administration*' sebagai sejarah tentang koneksi dan pengaruh. Sebagai contoh, pada buku karya Fayol tercetak judul '*Administration Industrielle et Generale*' namun diterjemahkan oleh Constante Storrs dengan dukungan L Urwick menjadi ''*General and Industrial Management'*. Mengapa kata '*Administration*' diterjemahkan menjadi kata '*Management*'?. Apa hubungannya antara administrasi terhadap manajemen? Bagaimana pengaruh buku Urwick terhadap perkembangan pemahaman tentang administrasi? Kedua pertanyaan ini tentu tak dapat terjawab hanya berdasarkan *etymology.* Ada sejarah yang dapat saya persepsi sebagai *specific circumstance* yang mempengaruhi Urwick membuatnya menjadi *unique to his own context.* Pada contoh ini, *histrorical interconnectivity of administration realities* yang pernah terjadi antara *France* dan *England* pada masa lalu serta adanya *distinct identity* harus menjadi fokus kajian saya dalam menelusuri konektivitas administrasi dan manajemen. Dengan dukungan *etymology,* sejarah adminsitrasi akan tampak jelas sebagai *the history of successive change of administration* yang terjadi karena perubahan situasi ekonomi, politik, budaya, estetika, keyakinan keagamaan, teknologi dan ilmu pengetahuan maupun beberapa faktor strategis lainnya. Tidak mudahnya, semua perubahan ini terjadi berbeda-beda di satu lokasi terhadap lokasi lainnya pada kurun waktu yang juga berbeda.

Dapat menemukan satu kata yang merupakan sumber kata '*administration*' sudah cukup bagi saya untuk menutup buku ini, karena tujuan penulisan buku sudah tercapai. Tetapi ternyata ini bukan pekerjaan mudah seperti yang sempat saya bayangkan. *There is no single way to search the origin of administration.* Begitu banyak persimpangan jalan berupa prinsip maupun perspektif yang harus saya pilih satu untuk tega mengabaikan satunya lagi, agar saya dapat menempuh satu jalan yang saya nilai akan mengarahkan pada temuan *the origin of administration.* Upaya ini saya tempuh untuk mengetahui '*How did knowledge travel?* yakni bagaimana pengetahuan tentang administrasi mengaliri sang waktu sembari memercik air pada manusia dan menjadi tanah tempat kokohnya budaya berdasarkan pada jalan sejarah yang benar. Saya berharap dapat mengetahui alur cerita bagaimana '*Jangawareng*' dulu kala memahami administrasi pada kehidupan sehari-hari (*How did one person know about administration'?*). Pada masyarakat akademis Indonesia dulu kala, upaya untuk mengetahui arti suatu kata dilakukan dengan cara keratabasa yakni mereka-reka pengertian suatu kata dari bentuk singkatannya yang cocok sehingga masuk akal, contohnya tercetak pada Kamus Bahasa Indonesia yang diterbitkan oleh Pusat Bahasa Departemen Pendidikan Nasional (2008: 698) berjudul '*Kamus Bahasa Indonesia'* (Jakarta: Pusat Bahasa) yakni *pujangga* diartikan berasal dari *puja angga,* artinya anggota kaum pemuja. Keratabasa ini merupakan *etymology.*

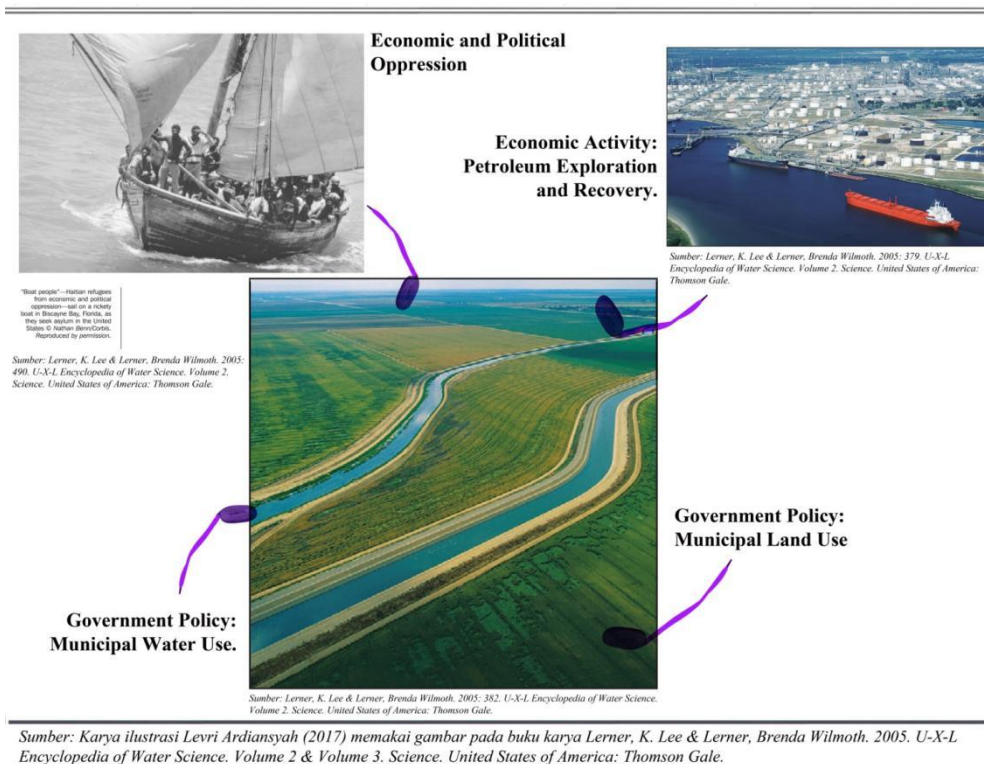
Apakah benar '*No science has a single origin?*'. Pertanyaan ini terbersit saat saya membaca buku karya Herrlee Glessner Creel, *Professor of Early Chinese Literature and Institutions, The University of Chicago* terbit tahun 1937 berjudul '*The Birth of China A Study of the Formative Period of Chinese Civilization'* (New York: Frederick Ungar Publishing Co) yang tercetak '*No civilization has a single origin*'. Saat Creel menulis *Chapter III Origins of Chinese Civilization* terbaca adanya kesadaran beliau bahwa pertanyaan tentang *the origin of Chinese civilization* merupakan pertanyaan yang diperdebatkan sepanjang masa. Creel sendiri menulis bahwa pertanyaan ini memang tidak tepat. Pada bukunya tercetak: '*To ask: 'What is the origin of Chinese culture?*' *is to state the question improperly. No civilization has a single origin. No people has originated in a state of isolation from all contacts with other peoples'* (Creel, Herrlee Glessner, 1937: 39). Meski debat terus berlangsung, tidak menghalangi langkah Prof. Creel untuk meneruskan penggalian dan studi tentang *the origin of Chinese civilization* dengan harapan esok dapat terketemukan jawaban yang tepat. Pada bukunya Creel, Herrlee Glessner (1937: 39) berjudul '*The Birth of China A Study of the Formative Period of Chinese Civilization'* (New York: Frederick Ungar Publishing Co) tercetak '*Instead of asking what was the origin of Chinese civilization we should rather inquire what were the origins of various cultural elements which figured most prominently in its development. We are still unable to trace the origin of some of these individual elements, but recent excavation and study have advanced us far on the road toward the ultimate solutions*'. Bukti temuan penggalian pada tahun 1927 oleh *paleontologists of the*

Geological Survey of China dengan arahan oleh J.G. Anderson berupa '*The Peking Man or Sinanthropus Pekinensis*' tentu menyemangati Creel bahwa keluar dari *question improperly* ternyata dapat tiba pada bukti fakta '*The earliest man-like inhabitant of the Chinese area*' yang kemudian sangat dahsyat mempengaruhi perspektif tentang sejarah kebudayaan China (*the significance of this for the history of Chinese culture is tremendous,* Creel, Herrlee Glessner, 1937: 41).

Bagi saya ini adalah pelajaran sejarah yang amat berharga, bahwa selain hanyut pada pertanyaan tentang '*What is the origin of administration?*' yang tentu saja *debatable* bahkan dianggap sebagai pertanyaan yang tak tepat, lebih baik saya meneruskan langkah menemukan bukti fakta adanya Ilmu Administrasi dengan berusaha menjawab pertanyaan '*What is administration?*'. Bila Ilmu Administrasi terbangun tanpa fakta, maka kebenaran ilmiah terajar berdasarkan alasan semata (*reasoning*) dan dugaan (*conjecture*). Sepengaliran waktu, alasan ilmiah ini dapat menguat hingga menjadi keyakinan ilmiah berupa *postulate* yang kebenarannya harus diterima karena ia adalah benar. Dengan begini, Ilmu Administrasi yang saya ajarkan pasti akan tiba pada waktunya tak lagi menjadi Ilmu Administrasi melainkan menjadi Filosofi Administrasi. Fakta administrasi, mau tidak mau, suka tidak suka, haruslah berupa benda nyata berujud fisik. Bagi sebagian kolega dosen, tentu ini sepertinya tak masuk akal (*is it chimerical?*), namun bagi saya istilah 'tak masuk akal' masih lebih baik daripada Ilmu Administrasi menjadi domain dunia gaib yang faktanya tak dapat diketahui (*the domain of the inscrutable*). Persoalan saya tergambar pada pertanyaan '*Is it possible to explain it'?* Bagaimana saya dapat melakukan verifikasi fakta dan asosiasinya terhadap Ilmu Administrasi? Tak kalah sulitnya adalah persoalan metode yang harus *based on exact method of science.* Sungguh sulit. Ingin menyerah rasanya, namun saat saya membuka kamus, tak terbaca ada kata 'menyerah'.

Dengan mengibaratkan Ilmu Administrasi berupa air, pertanyaan 'Dimanakah sumber air?' akan terurai pada beberapa kalimat tanya, 'Apakah di laut?, 'Apakah di lokasi mata air?' atau 'Apakah di awan?. Manakala saya memilih untuk mencari sumber Ilmu Administrasi hingga ke laut lepas, sesungguhnya saya sedang mencari sumber air terjun yang terdapat pada dasar laut hingga kedalaman tertentu beberapa kilometer dibawah dasar laut. Tentu ini bukan pekerjaan mudah bagi *geologist* sekalipun. Air laut yang berada dipermukaan juga sangat luas. Ini merepresentasikan begitu banyaknya bidang ilmu yang juga bermuara ke laut. Tentu saya akan menemukan kesulitan mengidentifikasi mana Ilmu Administrasi, mana Ilmu Ekonomi, mana Ilmu Politik dan yang mana Ilmu Hukum? Dengan memakai gambar pada buku karya Lerner, K. Lee & Lerner, Brenda Wilmoth (2005) berjudul '*U-X-L Encyclopedia of Water Science. Volume 2 & 3. Science'* (United States of America: Thomson Gale) dapat saya ilustrasikan tentang Ilmu Administrasi sebagai air yang sumbernya meluas

berada di laut, akan tumpang tindih dengan berbagai disiplin ilmu lainnya, seperti ini:

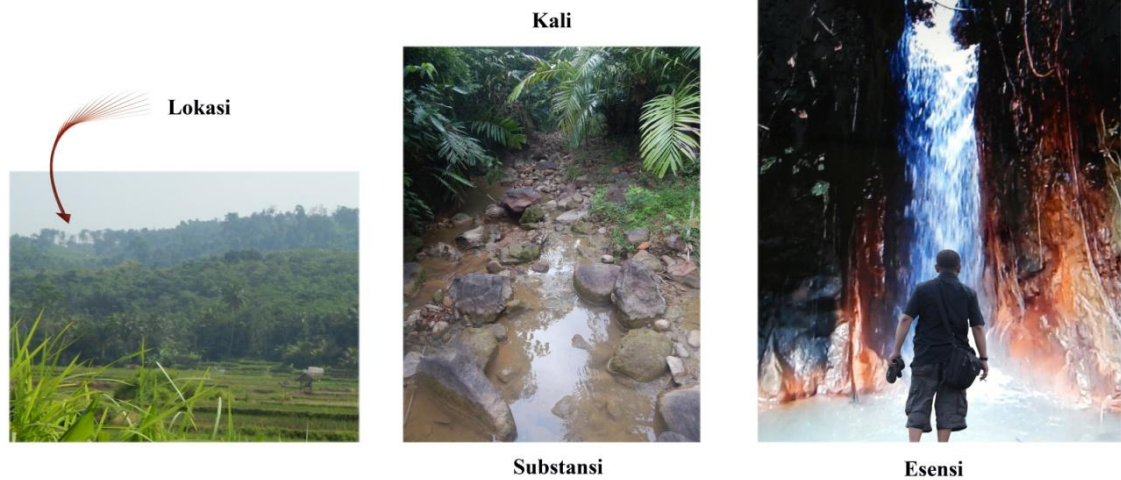
Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai gambar pada buku karya Lerner, K. Lee & Lerner, Brenda Wilmoth. 2005. U-X-L Encyclopedia of Water Science. Volume 2 & Volume 3. Science. United States of America: Thomson Gale.

Ilustrasi ini merupakan gambaran kondisi Ilmu Administrasi saat ini yang tumpang tindih terhadap berbagai disiplin ilmu: terhadap Ilmu Ekonomi pada aspek manajemen, terhadap Ilmu Pemerintahan pada aspek implementasi kebijakan, terhadap Ilmu Hukum pada aspek perumusan kebijakan dan terhadap Ilmu Politik pada aspek kekuasaan. Persoalan ini telah lama saya renungkan dengan pertanyaan introspektif, ‘Yang manakah sejatinya Ilmu Administrasi?’.

Air Terjun

Kali

Lokasi

Substansi

Esensi

Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai karya fotografi Levri Ardiansyah pada buku karya Ardiansyah, Levri. 2015. Levria Stone Photographic Yearalbum. Banten.

Pilihan kedua adalah menelusuri sumber air terjun pada lokasi sumber mata air yang berada di perbukitan sekitar air terjun. Pilihan ini tentu saja spesifik dan memungkinkan untuk saya tempuh. Dengan memilih ini, maka saya dapat menemukan (1) jalan berupa kali yang saya fungsikan sebagai jalan; (2) lokasi mata air, yang menunjukan posisinya pada jarak berapa meter dari air terjun; dan (3) rupa mata air, apakah berupa air yang mengalir pada celah bebatuan ataukah air yang mengalir dari akar pohon atau bisa jadi rupa lainnya. Berdasarkan karakteristik rupa mata air, saya dapat memberi nama julukan mata air. Bila berupa air yang mengalir pada celah bebatuan, julukannya adalah '*Cibatu*' atau bila berupa air yang mengalir dari akar pohon, julukannya adalah '*Cijangkar'* yakni air pada akar yang menyembul ke permukaan tanah.

Lokasi juga merupakan pengertian lain dari *the origin* yakni tepatnya sebagai *a point* atau *a starting point* yang dapat ditelusuri *locus, positions* dan *local signs. Locus* merupakan *point* yang bergerak hingga batas tertentu berupa *another point* sedangkan *positions* merupakan petunjuk bagaimana ia ditempatkan pada ruang tertentu sehingga dapat terbaca orientasinya akan kemana. Pada penelusuran *the origin of administration,* lokasi merupakan negara, kota atau desa tempat sumber kata '*administration*', dan *point* yang bergerak merupakan petunjuk pembawa kata yakni siapa yang membawa dan berasal darimana. Bagaimana sejarah penerapan sumber kata '*administration*' kala itu juga sekaligus memberi petunjuk kemana orientasi penerapan kata kala itu. Pada buku karya Pressense, E. De. (1885: xxiv) berjudul '*A Study of Origins: or the Problems of Knowledge, of Being, and of Duty. Second Edition'* (New York: James Pott & Co, Church Publishers) tercetak '*...the local signs which visual and tactile impressions leave behind them on the points where they are produced*'. Ini artinya, *local signs* merupakan *point of administration* yakni jawaban

pertanyaan 'Darimana administrasi berasal?' yang dapat diketahui pada produk administrasi yang terdapat pada lokasi administrasi (*locus of administration*). Pertanyaannya, 'Apakah saya harus menelusuri sumber kata '*administration*' hingga pada '*the pre-existing moulds of administration*?' seperti pernyataan Kant bahwa '*We cast all things by an inward necessity into pre-existing moulds, and thus impart to them a wholly subjective character, so that we cannot apprehend the thing in itself*' (Pressense, E. De. (1885: xxiv). Andai ini saya tempuh, berarti temuan tentang sumber administrasi berupa kata mandiri pada bukti fakta harus ditelusuri lebih dalam untuk menemukan '*the pre-existing mould of administration*' berupa cetakan awal administrasi yang dapat dibaca sebagai petunjuk tentang proses terwujudnya kata mandiri administrasi yang tergambar pada *reference* maupun *character* pembentuk administrasi.

Memahami Pengertian '*Origin'*

Terdapat dua pengertian mendasar istilah '*origin*' yakni, *pertama* adalah titik atau tempat di mana sesuatu dimulai atau dibuat. Pada pengertian ini, *origin* merupakan sumber di mana sesuatu dimulai atau bisa juga dimengerti sebagai penyebab sesuatu. Pengertian yang kedua adalah tempat, situasi sosial, atau jenis keluarga dari mana seseorang berasal. Kedua pengertian mendasar ini dapat kita baca pada kamus, diantaranya *Webster's New World Dictionary* (Simon & Schuster, Inc. 1991. *Webster's New World Dictionary. Third College Edition.* New York: Prentice Hall General Reference). Berdasarkan pengertian mendasar ini, *origin* merupakan tempat sumber (*source, derive*) dari mana (*come from*) peristiwa dimulai (*begin* maupun *originate*) dan situasi sosial dari mana seseorang.

Istilah '*origin*' sendiri tercatat digunakan pertama kali sekira tahun 1400 M (*circa* 1400) pada Bahasa Latin yakni '*originem'* dengan kata nominatifnya '*origo'*, yang berarti 'leluhur' atau bisa juga berarti 'ras', dan dipahami 'permulaan, awal, sumber, keturunan, garis keturunan, kelahiran maupun terbit (*rise*) atau muncul'. Kata '*rise*' yang berarti '*origin*' ini berasal dari asal kata '*oriri*' yang artinya 'bangkit, bangun, muncul di atas cakrawala, menjadi terlihat; dilahirkan, diturunkan, ataupun menerima kehidupan' dan kerap digunakan sebagai kiasan seperti misalnya '*come forth, take origin, proceed, start* (*of rivers, rumors, etc.*). Dalam Bahasa Sankrit atau Sanskerta, terdapat istilah '*Iyarti'* yang artinya adalah untuk menggerakan (*to set in motion*) atau juga bisa berarti bergerak (*move*). Penggunaan kata '*origin*' oleh masyarakat semakin meluas hingga tahun 1560-an dipahami juga dalam arti 'awal suatu keberadaan' (*beginning of existence*) dan juga dalam arti 'dari mana sesuatu memperoleh wujud atau sifatnya' (*that from which something derives its being or nature*) sekira tahun 1600 (*circa* 1600). Uraian pada paragraf ini bersumber pada *online etymology.*

Sebagai sumber, *the origin* tentu saja merupakan awal mula atau '*the rising sun*'. Pada buku karya Thomas, Joseph (1852: 173) berjudul '*The First Book of Etymology: Designed to Promote Precision in the Use and Facilitate the Acquisition of a Knowledge of the English Language'* (Philadelphia: E. C. & J. Biddle) terdapat cetakan pengertian *origin* sebagai *source* yang dimengerti juga sebagai *beginning.* Kutipannya tergambar seperti ini:

O'ri-or, or'tus, to arise. ***Ori'go, ori'gin-is***, a rising or source, beginning, origin.

O'RIENT—(adj.) **RISING**: (n.) the rising sun; the east.
ORIEN'TAL—*of* or *pertaining to* the **EAST**.
OR'IGIN—**SOURCE**; beginning.
ORIG'INAL—*of* or in the **BEGINNING**; able to originate new thoughts.
ORIG'INATE—to *give* **ORIGIN** to.

Sumber: Thomas, Joseph. 1852: 173. The First Book of Etymology: Designed to Promote Precision in the Use and Facilitate the Acquisition of a Knowledge of the English Language. Philadelphia: E. C. & J. Biddle. Gambar disajikan oleh Levri Ardiansyah (2017).

Kata '*Origin*' digunakan masyarakat berbahasa Latin untuk menunjukan Matahari terbit (*The rising star*) yang kala itu diyakini berasal dari arah Timur (*the East*) dan karena ini tercipta istilah '*Orient*' yang digunakan pada Peta Bumi untuk menunjukan sumber sinar Matahari. Istilah '*to rise*' ini juga digunakan untuk menunjukan sumber, seperti pada kalimat '*A river takes its rise from a certain mountain*' yang terdapat pada buku karya Crabb, George., (1882: 646 & 647) berjudul '*English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers to which is Now Added an Index to the Words. New Edition with Additions and Corrections'* (New York: Harper & Brothers, Publishers). Perbedaan mendasar kata '*rise*' terhadap '*origin*' adalah bahwa '*rise*' menunjukan perkembangan bertahap (*gradual progress*) pada tahap pertama eksistensi suatu benda. Penyebab adanya eksistensi inilah yang merupakan '*the origin'*.

Pada pengertian '*Origin*' sebagai awal mula (*the beginning*) menunjukan adanya *the cause* yakni penyebab terjadinya awal mula pada periode waktu tertentu. Pada buku karya Crabb, George., (1882: 646 & 647) berjudul '*English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers to which is Now Added an Index to the Words. New Edition with Additions and Corrections'* (New York: Harper & Brothers, Publishers) tercetak '*Origin refers us to the cause as well as the period of beginning*'. Penyebab ini merupakan suatu benda nyata (*things*), sehingga setiap benda yang diduga merupakan penyebab yang mengawali suatu peristiwa dinyatakan sebagai '*Original*'. Dengan begini, benda *original* dianggap sebagai '*The author of a thing*' yang menegaskan bedanya terhadap *a copy* dan eksistensi benda *original* ini merupakan '*The Origin*'. Adanya *the cause* pada *the origin* ini membedakan *the origin* dengan *the beginning,* yakni *origin* merupakan *the cause of its nature* dan *beginning* merupakan periode (awal) yakni (1) *it dates it existence* dan (2) menunjukan durasi (*its duration*).

Cetakan tulisan Crabb, George., (1882: 646 & 647) berjudul '*English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers to which is Now Added an Index to the Words. New Edition with Additions and Corrections'* (New York: Harper & Brothers, Publishers) saya kutip berupa gambar ini:

ORIGIN, ORIGINAL, BEGINNING, RISE, SOURCE.

THE ORIGIN and ORIGINAL both come from the Latin *orior*, to rise; the former designating the abstract property of *rising*, the latter the thing that is *risen;* the first of its kind from which others rise. *Origin* refers us to the cause as well as the period of beginning; *original* is said of those things which give an *origin* to another: the *origin* serves to date the existence of a thing; the term *original* serves to show the author of a thing, and is opposed to the copy. The *origin* of the world is described in the first chapter of Genesis; Adam was the *original* from whom all the human race has sprung.

Christianity explains the *origin* of all the disorders which at present take place on earth.
BLAIR.

And had his better half, his bride,
Carv'd from th' *original*, his side. BUTLER.

Origin has respect to the cause, BEGINNING simply to the period, of existence: everything owes its existence to the *origin;* it dates its existence from the *beginning;* there cannot be an *origin* without a *beginning;* but there may be a *beginning* where we do not speak of an *origin.* We look to the *origin* of a thing in order to learn its nature: we look to the *beginning* in order to learn its duration. When we have discovered the *origin* of a quarrel, we are in a fair way of becoming acquainted with the aggressors; when we trace a quarrel to the *beginning*, we may easily ascertain how long it has lasted.

The *origin* of forms, Pyropilus, as it is thought the noblest, so if I mistake not, it hath been found one of the most perplexing inquiries that belong to natural philosophy. BOYLE.

But wit and weaving had the same *beginning*,
Pallas first taught in poetry and spinning.
SWIFT.

Origin and RISE are both employed for the primary state of existence; but the latter is a much more familiar term than the former: we speak of the *origin* of an empire, the *origin* of a family, the *origin* of a dispute, and the like; but we say that a river takes its *rise* from a certain mountain, that certain disorders take their *rise* from particular circumstances which happen in early life: it is, moreover, observable that the term *origin* is confined solely to the first commencement of a thing's existence; but *rise* comprehends its gradual progress in the first stages of its existence; the *origin* of the noblest families is in the first instance sometimes ignoble; the largest rivers take their *rise* in small streams. We look to the *origin* as to the cause of existence: we look to the *rise* as to the situation in which the thing commences to exist, or the process by which it grows up into existence.

If all the parts which were ever questioned in our gospels were given up, it would not affect the *origin* of the religion in the smallest degree.
PALEY.

The friendship which is to be practised or expected by common mortals must take its *rise* from mutual pleasure. JOHNSON.

The *origin* and *rise* are said of only one object; the SOURCE is said of that which produces a succession of objects: the *origin* of evil in general has given *rise* to much idle speculation; the love of pleasure is the *source* of incalculable mischiefs to individuals, as well as to society at large: the *origin* exists but once; the *source* is lasting: the *origin* of every family is to be traced to our first parent, Adam; we have a never-failing *source* of consolation in religion.

Nature which contemns its *origin*
Cannot be bordered certain within itself.
SHAKSPEARE.

One *source* of the sublime is infinity. BURKE.

Sumber: Crabb, George. 1882: 646 & 647. English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers ti which is Now Added an Index to the Words. New Edition with Additions and Corrections. New York: Harper & Brothers, Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Baldwin, James Mark., (1902: 243) berjudul '*Dictionary of Philosophy and Psychology; including many of the Principal Conceptions of Ethics, Logic, Aesthetics, Philosophy of Religion, Mental Pathology, Anthropology, Biology, Neurology, Physiology, Economics, Political and Social Philosophy, Philology, Physical Science, and Education; and giving a Terminology in English, French, German, and Italian. Vol.II'* (New York: The Macmillan Company. London: Macmillan and Co., Limited) tercetak beberapa penggunaan kata '*Origin*' yakni *Origin of Evil, Origin of Life, Origin of Species* dan pembedaan antara *Origin* terhadap *Nature.* Kutipannya tergambar seperti ini:

Origin : see GENESIS.

Origin of Evil : see equivalents for EVIL, under that term. A phrase used in discussions of the genesis and nature of EVIL (q. v.) in its various meanings, especially ethical evil.

The term THEODICY (q. v.) has come into use to include this problem in a larger one, more especially when treated from a theistic and apologetic point of view. A preliminary problem is necessarily that of the definition and classification of evils, and much of the discussion is vitiated by lack of clearness on this point. See EVIL.

Literature: the Book of Job, and the literature pertaining to Job, of which a late discussion is by ROYCE, Studies in Good and Evil. A different metaphysical standpoint is represented by ORMOND, Basal Concepts in Philosophy. For more theological treatment see the general works cited under THEOLOGY. As a problem of the philosophy of RELIGION (q. v.), it is treated in most of the literature there cited. See also THEODICY, especially the work of LEIBNITZ. (J.M.B.)

Origin of Life : Ger. *Ursprung des Lebens*; Fr. *origine de la vie*; Ital. *origine della vita.* The source of the first living organism upon the earth.

The attempt to prove spontaneous generation having failed, other theories have been advanced. It was suggested by H. E. Richter (1865), and later by Helmholtz and Lord Kelvin, that micro-organisms might reach the earth upon meteorites. There are no direct observations to support this suggestion, which does not explain the origin of life, but merely puts it one stage further off. (C.S.M.)

At the present time life is known only in organisms of complex structure and chemical constitution, and always accompanied by the presence of a substance called protoplasm, to the activities of which all vital phenomena are due. Since the crude theory of the spontaneous generation of such organisms has been disposed of, there remains only, as a scientific explanation, the theory of their gradual evolution from inorganic lifeless elements, at a time when the earth had cooled sufficiently to allow the necessary chemical combinations to take place. The determination of the series of increasingly complex bodies, which must have formed links in the long chain of development leading up to the formation of the proteids of which living protoplasm now consists, has been attempted by many observers, and not entirely without success. Amongst these may be especially mentioned Pflüger. Cf. LIFE, LIVING MATTER, PROTOPLASM, and VITALISM.

Literature: E. PFLÜGER, Pflüger's Arch. (1875); T. H. HUXLEY, The Physical Basis of Life (1868), and Collected Essays; M. VERWORN, Gen. Physiol. (1899). (E.S.G.)

Origin of Species : Ger. *Ursprung der Arten*; Fr. *origine des espèces*; Ital. *origine delle specie.* Theory of the rise of diversities in the forms of animal life of sufficient magnitude to constitute different SPECIES (q. v.).

The phrase has been classic since the appearance of Darwin's *Origin of Species by Means of Natural Selection.* The two great rival theories are SPECIAL CREATION and EVOLUTION; see those topics. The corresponding 'classics' of the special creation theory are the *Book of Genesis* and its poetical exposition in Milton's *Paradise Lost.* Also see FACTORS OF EVOLUTION, DESCENT, HEREDITY, TELEOLOGY, and NATURAL SELECTION. (J.M.B., E.B.P.)

Origin *versus* **Nature :** no concise foreign equivalents. A phrase used to indicate the question whether a complete account of the origin of a thing would also be a complete account of its nature.

The inquiry is often made under the terms 'origin versus reality,' or, in an expression a little more sharp in its epistemological meaning, 'origin versus validity.' 'Origin versus nature' seems to mark better the general distinction between the 'how' of the question—how a thing arose or came to be what it is; and the 'what' of the question—what a thing is.

Baldwin, James Mark. 1902: 243. Dictionary of Philosophy and Psychology including many of the Principal Conceptions of Ethics, Logic, Aesthetics, Philosophy of Religion, Mental Pathology, Anthropology, Biology, Neurology, Physiology, Economics, Political and Social Philosophy, Philology, Physical Science, and Education; and giving a Terminology in English, French, German, and Italian. Vol.II. New York: The Macmillan Company. London: Macmillan and Co., Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

Setelah menelusuri *the origin of administration,* pertanyaannya adalah 'Apakah pemahaman tentang administrasi saat ini yanag merupakan '*a succession of essentially new meanings of administration'* masih merupakan konsep yang sama dengan '*the origin of administration'?*

What is the Origin of Administration?

Pertanyaan tentang fakta *origin* administrasi ini tentu saja sulit dijawab karena '*No civilization has a single origin. No people has originated in a state of isolation from all contacts with other peoples'* (Creel, Herrlee Glessner, 1937: 39). Demikian pula '*No science has a single origin',* sehingga pertanyaan '*What is the origin of administration*' tentu akan mengarahkan saya untuk menelusuri '*the origins of administration*'. Dan sungguh tidak mudah menelusuri *the origins of administration,* diantaranya karena:

1. Kata '*administration*' sulit dibedakan dengan beberapa kata lainnya, terutama kata '*management*', '*organization*', '*government', 'politic*' maupun '*business*'.
2. Di kalangan dosen Ilmu Administrasi, pertanyaan '*What is administration*' masih merupakan pertanyaan yang diperdebatkan ada tidaknya. Buku ini dan buku karya saya sebelumnya yakni '*Induction of Science of Administration*' maupun '*Earth and the Laws of Association*' tak dimaksudkan menutup diskusi ini (*without foreclosing this debate*). Saya memahami dasar pemikiran rekan dosen yang beranggapan tidak perlu ada *question of fact* ini karena '*this is not because we do not recognize the importance of fact*'. Kepada diri sendiri dan rekan dosen yang beranggapan perlu adanya *question of fact* ini karena '*this is not because we do not recognize the importance of logic'.* Bukankah air minum tersedia tak muncul begitu saja (*appear out of vacuum*)?.
3. Sejarah kata '*administration*' merupakan *histrorical interconnectivity* berbagai peristiwa, sistem maupun keilmuan yang dinamik;
4. Sejarah praktik administrasi amat beragam bentuk dan polanya;
5. Adanya *specific circumstance* yang mempengaruhi keunikan administrasi;
6. *Principles are modified in practice;*
7. Tidak adanya teori pada Ilmu Administrasi saat ini.

Ada beragam *meaning, use,* maupun *symbolism* tentang administrasi yang justru bersesuaian satu terhadap lainnya bahkan amat sulit untuk dibedakan namun selalu terbuka pembantahan maupun kontradiksi (*open contestation*). Bagi saya realitas administrasi ini merupakan petunjuk bahwa *administration is unthinkable without these difficulties* yang menyadarkan saya tentang '*What is not administration*'. Administrasi berada di dalam organisasi pemerintahan. Pertanyaan disini, 'Apa bedanya Ilmu Administrasi dengan Ilmu Pemerintahan maupun Ilmu Politik?'. Pada kenyataan administrasi berada di dalam organisasi perusahaan, pertanyaannya 'Apa bedanya Ilmu Administrasi dengan Ilmu Ekonomi?'. Sebagai contoh, administrasi juga dipandang sebagai manajemen, bahkan dianggap lebih sempit dari manajemen. Mengapa administrasi dipersepsi merupakan manajemen? Hingga hari ini banyak orang yang memahami administrasi sebagai biaya resmi yang *familiar* terdengar sebagai 'biaya administrasi'. Demikian juga administrasi sebagai dokumen resmi, seperti

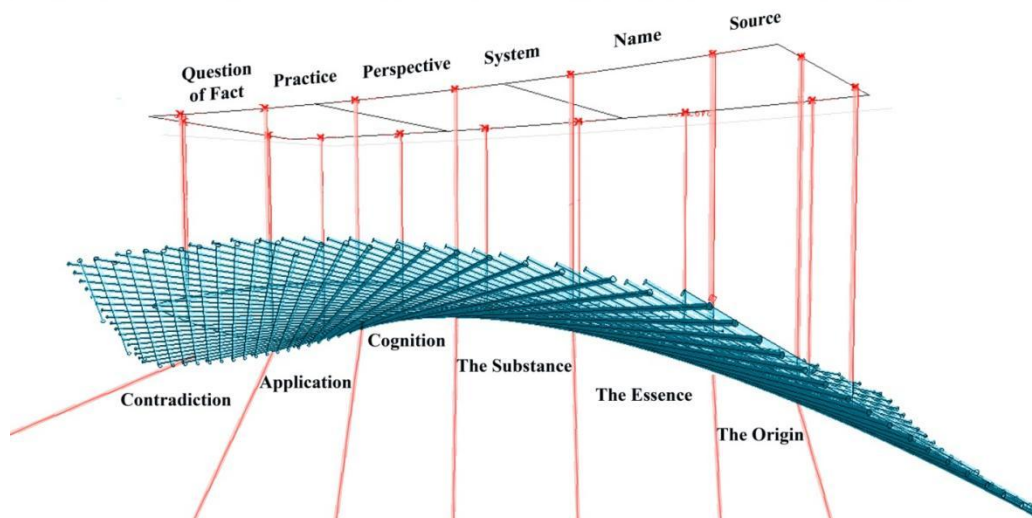
administrasi kependudukan yang dokumen resminya *familiar* terdengar sebagai KTP.

Pada banyak kamus, kata administrasi memiliki pengertian yang kontradiktif dan dengan interval yang sangat luas. Sebagai contoh, administrasi adalah *serve* atau *service,* sehingga administrator adalah *servant* (pembantu). Satu sisi administrator adalah pembantu dalam pengertian pada level rendah seperti pembantu rumah tangga, pelayan hingga budak, dan satu sisi lainnya administrator adalah pembantu dalam pengertian pada level tertinggi semisal 'menteri pembantu presiden'. Pengertian administrasi sebagai *serve* ini meluas hingga dipahami dalam konteks keagamaan semisal pelayanan kerasulan ataupun pelayanan keagamaan. Bagi saya ini membingungkan. Apalagi pengertian administrasi ini ditempatkan pada ranah ilmu, kian membingungkan.
Saya harus menetapkan batas (*the windows*). Tidak semua perspektif, konsep maupun teori yang padanya terdapat kata 'administrasi' atau berkenaan dengan administrasi dapat terus ditelusuri hingga pada *the origin of administration*, diantaranya disebabkan (1) penelusuran tiba pada ilmu selain Ilmu Administrasi, misalnya konsep tentang fungsi manajemen yang akan tiba pada ranah Ilmu Ekonomi; (2) terdapat '*administrative theory*' yang ternyata bukan merupakan suatu teori, melainkan hasil terjemahan dari kata '*doctrine*' menjadi '*theory*' dan ada juga istilah '*administrative theory*' pada judul buku yang isinya tidak terdapat pembuktian ilmiah suatu konsep administrasi melainkan hanya kumpulan pendapat beberapa pakar; dan (3) banyak terdapat perspektif maupun pandangan para pakar yang tidak mengutip sumber aslinya. Selain ini, penelusuran tentang *the origin of administration* ini harus berakhir pada batas sejarah.

Batas, baik berupa kriteria maupun waktu tidak semuanya yang berkaitan dengan kata administrasi dapat masuk penelusuran. Batas ini merupakan *windows.* Pada buku karya Carr, H. Wildon (1922: 24) berjudul '*A Theory of Monads Outlines of the Philosophy of the Principle of Relativity'* (London: Macmillan and Co., Limited) tercetak '*The monads have no windows by which anything can enter or pass out*'. Kutipannya tergambar seperti ini:

24 A THEORY OF MONADS PART I

minds of my fellows are monads, any centre of living activity such as a seed or a cell of my body may be viewed as a monad, and in general anything whatever which can be, and in so far as it is, considered from its own subjective standpoint as a subject of experience is a monad. I will now, still keeping these particular instances in mind, try and set forth the essential and distinguishing character of the monad. It is expressed in the negative qualification "windowless." We owe this picturesque expression also to Leibniz. "The monads have no windows by which anything can enter or pass out." This has proved a great stumbling-block to the acceptance of the doctrine of the monad. It introduces a paradox into the concept itself. There is intercourse between mind and mind; minds are monads; if then there be no inlet or outlet through which influences pass, how is intercourse possible? Many philosophers, confronted with this difficulty and anxious to retain the concept of the monad, have declared that the monads have windows, that they interact after the manner of physical things, with the difference only that they belong to a higher order.

Sumber: Carr, H. Wildon. 1922: 24. A Theory of Monads Outlines of the Philosophy of the Principle of Relativity. London: Macmillan and Co., Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

Sumber: Karya ilustrasi Levri Ardiansyah 2017).

The modern perspective is that administration as cooperation. Pada perspektif ini, administrasi bukanlah *a new and unique science* ataupun *a new series of administrative laws,* melainkan administrasi merupakan *another step in the development of political economics and law* sejak dikumandang oleh Woodrow Wilson. Pada persepsi saya, penjelasan tentang administrasi seharusnya dapat dilihat *in the physical terms of motion and matter* yakni mengalirnya pelayanan dan lokasi (*serving and earth*). Dulu kala, saat perdebatan filsofis tentang *the origin of life* dikalangan *Greek philosophers,* terbentuklah *two contrasting opinions* yang dikenal sebagai *vitalistic and mechanistic.* Pada buku karya Osborn, Henri Fairfield (1917:2) berjudul '*The Origin and Evolution of Life on the Teory of Action, Reaction and Interaction of Energy*' (New York: Charles Scribner's Sons) tercetak:

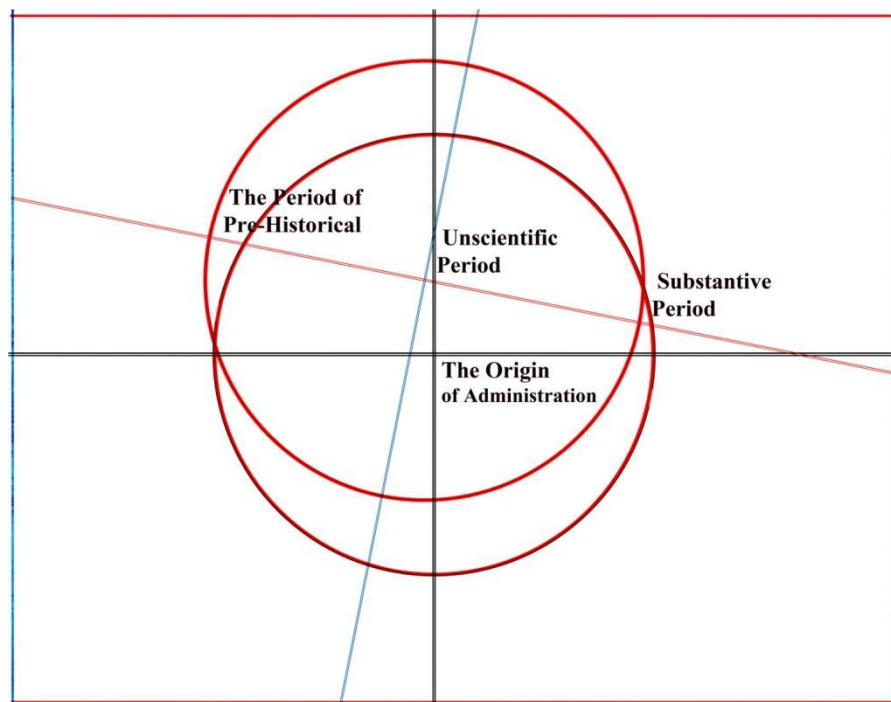
The more modern scientific opinion is that life arose from a recombination of forces pre-existing in the cosmos. To hold to this opinion, that life does not represent the entrance either of a new form of energy or of a new series of laws, but is simply another step in the general evolutionary process, is certainly consistent with the development of mechanics, physics, and chemistry since the time of Newton and of evolutionary thought since Buffon, Lamarck, and Darwin. Descartes (1644) led all the modern natural philosophers in perceiving that the explanation of life should be sought in the physical terms of motion and matter. Kant at first (1755–1775) adopted and later (1790) receded from this opinion.

These contrasting opinions, which are certainly as old as Greek philosophy and probably much older, are respectively known as the *vitalistic* and the *mechanistic.*

Sumber: Osborn, Henry Fairfield. 1917:2. The Origin and Evolution of Life on the Teory of Action, Reaction and Interaction of Energy. New York: Charles Scribner's Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

Membatasi Penelitian

Menelusuri Batas Sejarah Praktik Administrasi

Saat ini rasanya tidak mungkin saya menelusuri *the origin of administration* berdasarkan praktik administrasi hingga ke masa *pre-historical.* Oleh karena ini, paling mungkin dapat menemukan *the origin of administration* pada lokasi diantara *the unscientific period* hingga *the substantive period* yang saya gambarkan seperti ini:

Pada buku karya Baldwin, James Mark (1913: 8 & 9) berjudul '*History of Psychology A Sketch and An Interpretation. Vol. 1 From the Earliest Time to John Locke'* (London: Watts & Co) tercetak '*... the great epochs in history of thought*' seperti ini:

Adopting a preliminary division of the entire history, in accordance with this guiding principle, we find the great epochs in the history of thought about the mind to be as follows—

1. The Period of Pre-historical and Pre-logical Interpretation, occurring in primitive peoples, mystical and emotional in its character. It is the period of "psychosophy,"[2] preceding psychology. It corresponds to the early a-dualistic and practical period of the child's apprehension of the self.

2. The Ancient or Unscientific Period, covering the development of Greek thought, which we may call the "Greek Period." It corresponds to the unreflective stage of the child's thought of self, the period of the origin of dualism. It is unreflective in the sense that in this period the view of the self is not exact or critical, not the subject of distinct definition, but remains incidental to the larger view of the world or nature taken as a whole. It has three sub-periods: the "projective" or Pre-socratic, the "subjective" or Socratic, and the "objective" or Aristotelian. In Plato, the motives of "ejection" and æsthetic reconciliation are present, mediating the transition from Socrates to Aristotle.

3. The "Mediæval" or "Substantive" Period, so named from the fact that in it the great distinction arose between mind and body as different and distinct substances. It culminated in the explicit dualism of Descartes. It corresponds to the stretch of development of the individual which culminates in a similar dualism. Historically, this allowed of the separation of the problems of mind from those of body, and justified the rise of Psychology, the science of mind, in distinction from Physics.

4. The Modern Period, or the epoch of reflective and scientific interpretation. It corresponds to the development of the individual's reflection in which the self is both objective matter and subjective principle. The subject and object selves are distinguished. Mind and body become presuppositions of reflection: spheres of reference for all sorts of experience. Psychology as a science develops its peculiar body of knowledge and its exact methods of investigation.

Sumber: Baldwin, James Mark. 1913: 8 & 9. History of Psychology A Sketch and An Interpretation. Vol. 1 From the Earliest Time to John Locke. London: Watts & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Putnam, George P (1853) berjudul '*Hand-book of Chronology and History. The World's Progress, a Dictionary of Dates: with Tabular Views of General History and Historical Chart. Sixth Edition'* (New York: George P. Putnam) tercetak:

TABULAR VIEWS OF UNIVERSAL HISTORY,

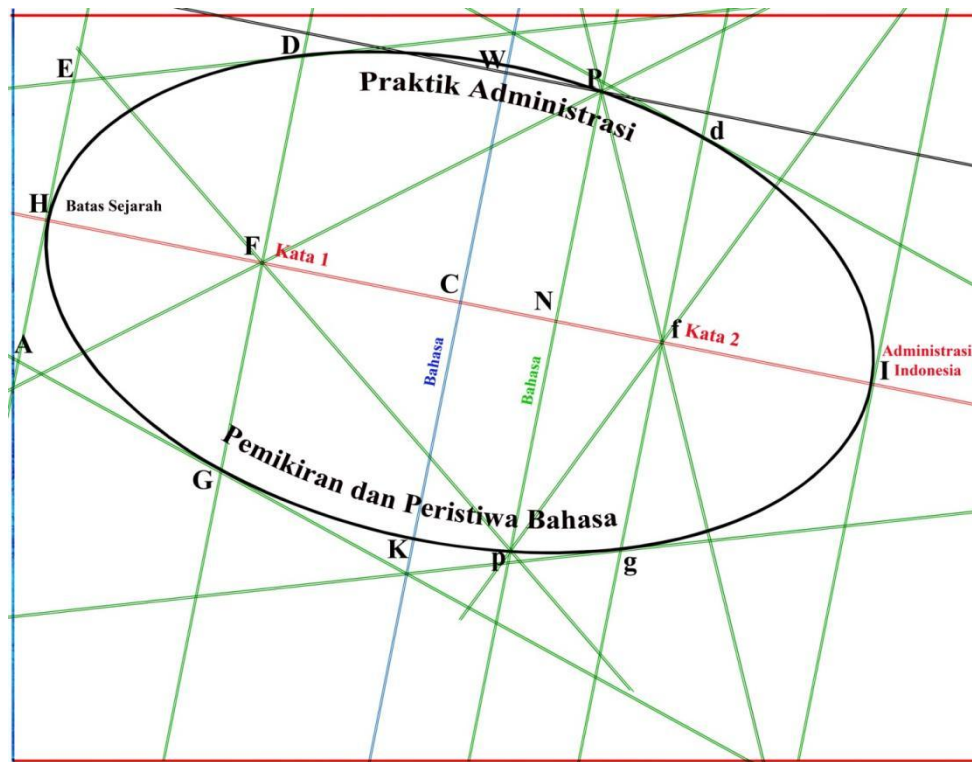
IN CONTEMPORARY COLUMNS.

I. ANCIENT HISTORY.

II. MODERN HISTORY.

Sumber: Putnam, George P. 1853. Hand-book of Chronology and History. The World's Progress, a Dictionary of Dates: with Tabular Views of General History and Historical Chart. Sixth Edition. New York: George P. Putnam. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Putnam, George P (1853) berjudul '*Hand-book of Chronology and History. The World's Progress, a Dictionary of Dates: with Tabular Views of General History and Historical Chart. Sixth Edition'* (New York: George P. Putnam) tercetak:

Sumber: Putnam, George P. 1853. Hand-book of Chronology and History. The World's Progress, a Dictionary of Dates: with Tabular Views of General History and Historical Chart. Sixth Edition. New York: George P. Putnam. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Putnam, George P (1853: 1) berjudul '*Hand-book of Chronology and History. The World's Progress, a Dictionary of Dates: with Tabular Views of General History and Historical Chart. Sixth Edition'* (New York: George P. Putnam) tercetak:

TABULAR VIEWS OF UNIVERSAL HISTORY.

I. ANCIENT CHRONOLOGY—from the Creation to the Birth of Christ—4004 years.
II. MODERN CHRONOLOGY—from the Birth of Christ to the present time—1850 years.

I. ANCIENT CHRONOLOGY.

DIVIDED INTO EIGHT PERIODS.

	B. C.*		
1. From the Creation, to the Deluge,	4004 2348	1656 years	The *Antediluvian Period.*
2. From the Deluge, to the Call of Abraham,	2348 1921	427 years	The *Dispersion Period.*
3. From the Call of Abraham, to the Exode from Egypt,	1921 1491	430 years	The *Patriarchal Period.*
4. From the Exode, to the Kingdom of Saul,	1491 1095	396 years	The *Theocratic Period.*
5. From Saul, to the Captivity of Israel,	1095 588	507 years	The *Monarchical Period.*
6. From the Captivity, to Alexander the Great,	588 330	258 years	The *Persian Period.*
7 From Alexander, to the Subjugation of Greece,	330 146	184 years	The *Grecian Period.*
8 From the Subjugation of Greece, to the Birth of Christ,	146 0	146 years	The *Roman Period.*

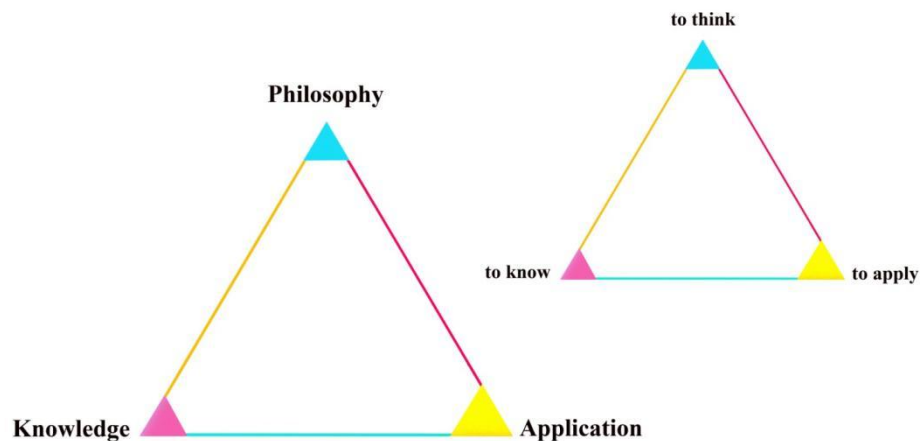
* From the Creation to the Christian era, the dates are reckoned B. C.—BEFORE CHRIST. *They are then changed to* A. D.—*the Year of our Lord.*

Sumber: Putnam, George P. 1853: 1. Hand-book of Chronology and History. The World's Progress, a Dictionary of Dates: with Tabular Views of General History and Historical Chart. Sixth Edition. New York: George P. Putnam. Gambar disajikan oleh Levri Ardiansyah (2017).

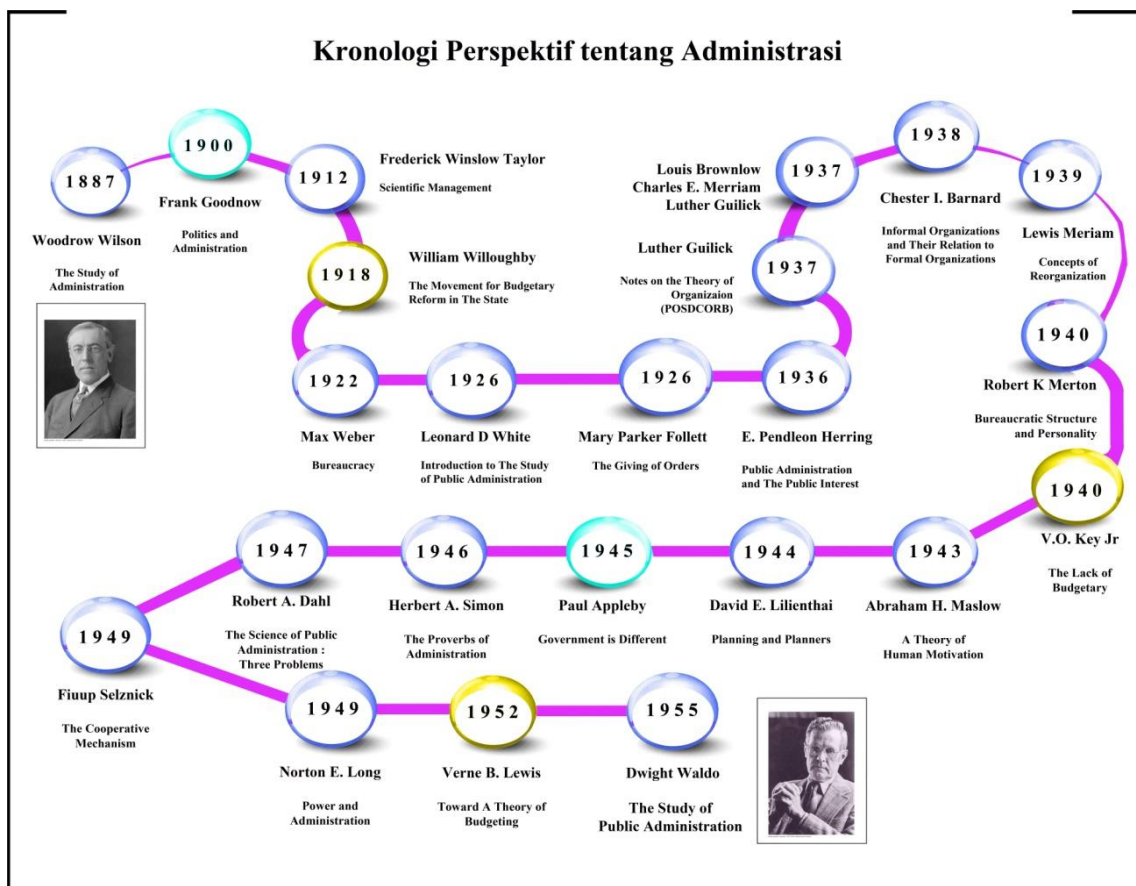
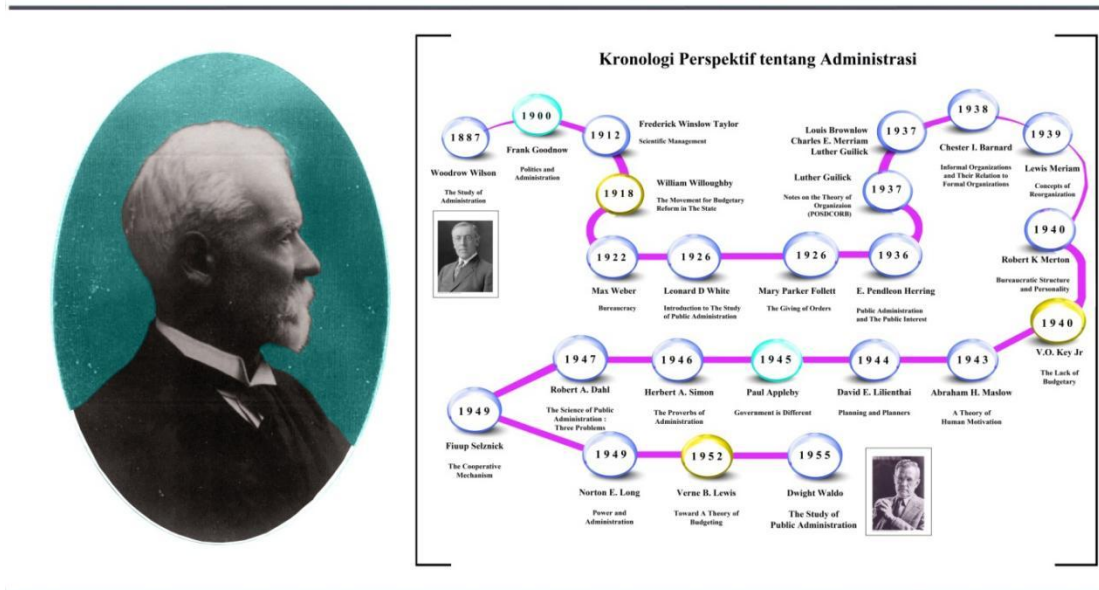
Batas Sejarah Pemikiran Filosofis tentang Administrasi

Filosofi berkenaan dengan problema kehidupan, misteri eksistensi manusia, *the origin* dan martabat manusia serta hubungan manusia dengan dunia tempatnya hidup. Pada buku karya Menge, Edward J (1918: 34) berjudul '*The Beginnings of Science: Biologically and Psychologically Considered'* (Boston, U.S.A. : The Gorham Press) tercetak "*the problems of philosophy are really the problems of life, the burden and the mystery of existence, the origin and destiny of man, the relations which he sustains to the world of which he is a part, and to the unseen universe which lies about him*". Kutipannya berupa gambar seperti ini:

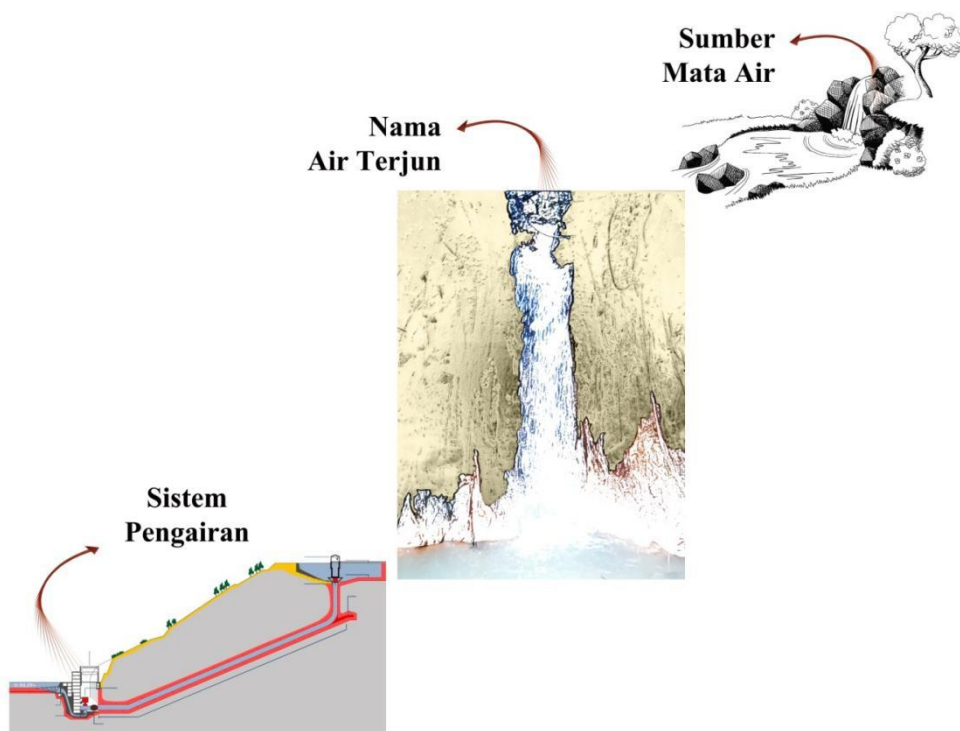
Now, philosophy means to love wisdom and a philosopher is one who loves wisdom, and "the problems of philosophy are really the problems of life, the burden and the mystery of existence, the origin and destiny of man, the relations which he sustains to the world of which he is a part, and to the unseen universe which lies about him. Though they may not be couched in philosophical language such questionings of heart and of mind we cannot wholly silence." [2]

Sumber: Menge, Edward J. 1918: 34 The Beginnings of Science: Biologically and Psychologically Considered. Boston, U.S.A. : The Gorham Press. Gambar disajikan oleh Levri Ardiansyah (2017).

Sumber: Ardiansyah, Levri. 2016. Induction of Science of Administration. Jatinangor: Unpad Press. Gambar disajikan kembali oleh Levri Ardiansyah (2017).

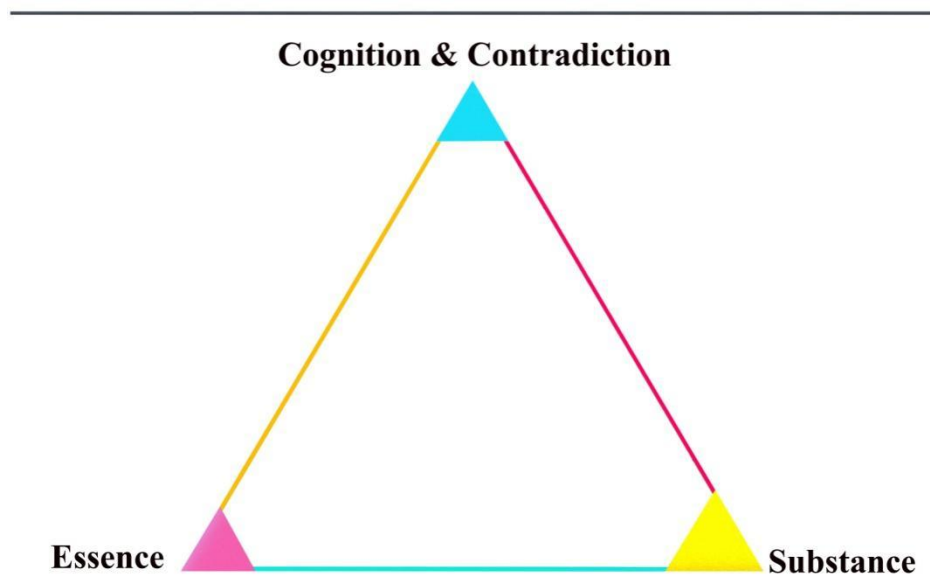
Batas Sejarah Paradigma tentang Administrasi
Paradigma merupakan pemikiran berdasarkan pencapaian ilmiah pada masa lalu sebagai dasar untuk mengkonstruksi pemikiran yang sederhana berupa model. Merunut pemikiran cetakan tulisan pada buku karya Kuhn, Thomas S., (1996: 10) berjudul '*The Structure of Scientific Revolutions. Third Edition'* (Chicago and London: The University of Chicago Press) terbaca bahwa istilah paradigma berkaitan erat terhadap istilah '*Normal Science*' yang tercetak '... *I shall henceforth refer to as 'paradigms,' a term that relates closely to 'normal science'*. Merunut pemikiran tulisan Kuhn, Thomas S., (1996: 10), *normal science* berarti penelitian berdasarkan satu atau lebih pencapaian ilmiah pada masa lalu (*past scientific achievements*) yang memberi landasan hingga dapat dipraktikan lebih jauh (*as supplying the foundation for its further practice*). Cetakan tulisannya seperti ini '*In this essay, 'normal science' means research firmly based upon one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice'*.

Penelusuran paradigma administrasi dapat dilakukan dengan menganalisis perspektif beberapa tokoh pemikir administrasi, yang kronologisnya dapat saya sederhanakan pada gambar ini:

Tidak semua tokoh pemikir ini menghasilkan paradigma administrasi berupa model administrasi, sehingga saya batasi pada tokoh pemikir administrasi yang saya nilai menghasilkan paradigm administrasi dengan pertimbangan: (1) pemikirannya berdasarkan penelitian ilmiah; yang tercetak pada (2) buku ilmiah; dan (3) telah diterapkan secara meluas; serta (4) mempengaruhi perkembangan studi administrasi. Tokoh terpilih adalah (1) Henri Fayol dan (2) Frederick Winslow Taylor.

Sumber: Karya ilustrasi Levri Ardiansyah (2017).

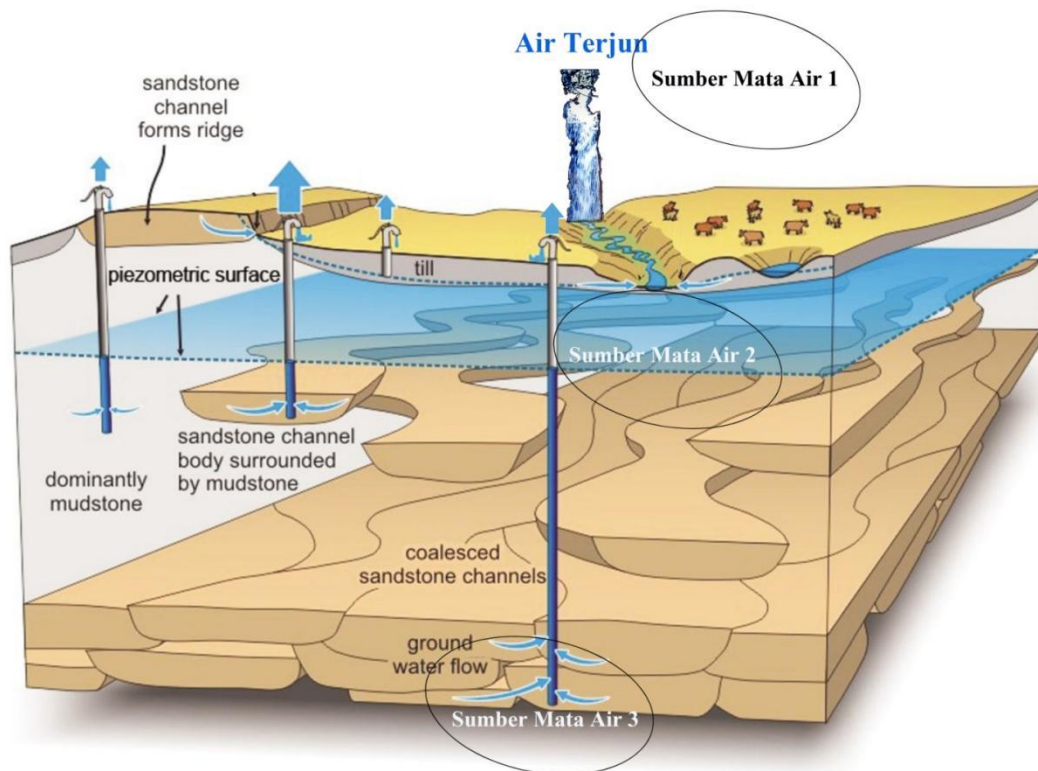
Kerangka Pemikiran tentang Substansi dan Esensi Administrasi

Saat saya mencari sumber mata air, kembali terbersit pertanyaan, 'Sumber mata air apa yang sedang saya cari?'. Pertanyaan introspektif ini menggiring pemikiran saya untuk menentukan nama air apa yang sumbernya sedang saya cari. Jawaban sederhananya adalah 'Air Terjun', bukan air mancur ataupun air minum. Saya sengaja tidak memilih nama air terjun berdasarkan julukan yang dipersepsi masyarakat desa setempat, karena nama yang saya cari merupakan esensi suatu benda. Sedangkan bagian-bagiannya, fungsi yang menggerakan setiap bagian dapat bekerja, maupun sistem yang terbangun berdasarkan keterhubungan maupun kepaduan satu terhadap satunya lagi merupakan substansi. Dengan dasar pemikiran ini, penelusuran *the origin of administration* berarti penelusuran tentang (1) substansi '*administration*' yakni sistem administrasi merunut pemikiran pemikiran para pakar; (2) esensi nama '*administration*' berikut sifat-sifat khusus yang melekat pada nama '*administration*' maupun bentuk alamiahnya, dan (3) penelusuran sumber kata '*administration*' yakni apa kata dasar yang mandiri, berasal dari bahasa apa, dan bagaimana sejarahnya kata ini merepsentasikan substansi administrasi. Tentang substansi administrasi, yang dapat saya telusuri untuk dituliskan pada buku ini hanya terbatas pada sistem berdasarkan pemikiran, dan tidak menelusuri sistem alamiah administrasi, yang mengharuskan adanya fakta alamiah administrasi.

Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai gambar sumber mata air dari http://www.istockphoto.com. gambar nama air terjun dari karya fotografi Levri Ardiansyah dan gambar sistem pengairan dari Schematic diagram of a pumped storage.

Pada setiap buku yang saya tulis, tercetak istilah ‘Merunut pemikiran’ yang saya mengerti sebagai (1) menelusuri kembali (pemikiran yang tercetak pada buku maupun tulisan ilmiah); (2) melacak jejak (yang tercetak pada buku maupun tulisan ilmiah) dan (3) menyelidiki permasalahan yang dapat saya baca pada buku maupun tulisan ilmiah. Dasar penggunaan istilah ini ada pada buku karya Pusat Bahasa Departemen Pendidikan Nasional (2008: 1233) berjudul ‘*Kamus Bahasa Indonesia’* (Jakarta: Pusat Bahasa). Saya tidak menggunakan istilah ‘Merunut pemikiran’, karena bagi saya penggunaan istilah “Merunut pemikiran” berarti saya merunut pemikirani apa yang tercetak pada buku maupun tulisan ilmiah yang saya kutip, karena ‘Merunut pemikiran’ adalah kata lain dari ‘Kuting’ yakni selalu mengikut (mengekor) dengan tidak membantah (Pusat Bahasa Departemen Pendidikan Nasional (2008: 786) berjudul ‘*Kamus Bahasa Indonesia’* (Jakarta: Pusat Bahasa). sedangkan penggunaan kata ‘Merunut pemikiran’ berarti saya belum tentu merunut pemikirani apa yang tercetak pada buku maupun tulisan ilmiah yang saya kutip.

Sistem administrasi yang diciptakan manusia berdasarkan pemikiran para pakar tentu terkandung kontradiksi pemikiran. Keduanya (pemikiran dan kontradiksi) akan saya persepsi satu terhadap satunya lagi sehingga dapat terbaca jelas asosiasi keduanya, yakni kepaduan pemikiran A terhadap kontradiksi B maupun kepaduan pemikiran A terhadap kontradiksi A dan juga perbedaan mendasar dari pemikiran A terhadap pemikiran B maupun terhadap kontradiksi A atau B. Saat saya kembali memandangi foto air terjun, saya tersenyum sendiri, ‘Oiya ya, air yang terjun ini tidak terjun untuk membangun sistem pengairan’. Saya jadi teringat pada kalimat Aristotle bahwa air hujan tidak turun ke Bumi untuk menjadikan jagung tumbuh. Pada buku karya Darwin, Charles (1872: xiii) berjudul ‘*The Origin of Species by Means of Natural Selection. Sixth Edition’* (London: John Murray) tercetak ‘*Aristotle, in his “Physicae Auscultationes” (lib. 2, cap 8, s. 2), after remarking that rain does not fall in order to make the corn grow...* ’.

Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai gambar segitiga pada buku karya Ardiansyah, Levri. 2016. Induction of Science of Administration. Jatinangor: Unpad Press.

Pemikiran dan kontradiksi tentang sistem administrasi juga harus saya sadari bukan merupakan *the origin of administration,* karena sejelas-jelasnya pemikiran tentang elemen-elemen administrasi dengan fungsi yang menggerakannya hingga menjadi padu sebagai satu kepaduan sistem tetap saja bukan merupakan *the origin of administration.* Merunut pemikiran cetakan pada buku karya Menge, Edward J (1918: 165) terbaca '... *an explanation of how each part comes to unify is not an explanation of the origin* '. Penyadaran ini berarti saya harus menginterpretasi *the origin* sebagai *the first and final cause of all effects.*

Sumber kata '*Administration*' berada pada kedalaman analisis dan sintesis, tidak dapat diketahui semata berdasar *etymology* maupun sejarah pemikiran dan praktik administrasi. Pada gambar ini saya tampilkan ilustrasi 3 sumber mata air seperti ini:

Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai gambar dari http://cjes.geoscienceworld.org dipadukan dengan gambar air terjun karya fotografi Levri Ardiansyah.

Saya berpegang pada prinsip bahwa fakta hanya dapat dijelaskan melalui sejarah, dalam hal ini sejarah administrasi (*facts which can only be explained by the history of administration*). Pertanyaan selanjutnya adalah 'Apa fakta yang dapat dinyatakan sebagai fakta nama administrasi masa lalu?' Jawaban pertanyaan ini saya temukan pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 218) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) yang tercetak: *'. . the historical method has one common element, namely, the collection of cultural facts leading up to the phenomena. In some cases getting the facts means written documents'* bahwa mendapatkan fakta berarti menemukan fakta berupa cetakan tulisan pada dokumen. Dengan begini, fakta nama administrasi masa lalu harus saya temukan pada tulisan yang tercetak pada buku maupun dokumen masa lalu.

Prinsip lainnya yang mendasari pemikiran saya adalah harus mempersepsi sejarah nama administrasi sebagai sejarah tentang koneksi dan pengaruh yakni koneksi berbagai bidang ilmu khususnya Ilmu Ekonomi, Ilmu Politik dan Sosiologi serta pengaruh terhadap adanya nama administrasi maupun pengaruh nama administrasi masa lalu terhadap perkembangan perekonomian, perpolitikan serta keadaan sosial masyarakat hingga saat ini.

Methodology

Memahami Metodologi

Metodologi berarti uraian tentang metode penelitian yang tersusun berdasarkan jawaban 2 pertanyaan (1) Apa metode penelitian yang dipilih? dan (2) Mengapa menggunakan metode penelitian terpilih? Pertimbangannya haruslah berdasarkan (a) paradigma penelitian yang terkonstruksi berdasarkan masalah filosofis dan filsafat yang digunakan; (b) tujuan penelitian; (c) langkah kerja; dan (d) instrumen penelitian. Pada rumpun ilmu Sosial, metodologi merupakan interpretasi terbaik tentang identitas penelitian yang teruraikan berupa metode ilmiah, sehingga dengan begini, metodologi amat menentukan merupakan suatu metode ilmiah hingga dapat dinyatakan sebagai penelitian ilmiah. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 21 & 22) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak '*Scientific research as scientific method*' yang salinan kutipannya saya sajikan berupa gambar ini:

Scientific Research as Scientific Method. In somewhat the same way, therefore, in which "science" has often been interpreted as identical with "method," so social science will find some of its best interpretations in identity with its methodology. And more specifically, continuing our introduction to the whole concept and process of social research, scientific method will often become identified with scientific research, with variations in concepts and assumptions contributing to clearer analyses of differences. There is, of course, to begin with, that composite general scientific method, to which we have already referred, which is applicable to all scientific research regardless of details of concrete methodology. It is, as it were, a sort of research constant in the midst of any number of variables in detailed techniques and "methods." Thus, the history of scientific research, in whatever fields, shows great diversity, especially in different physical laboratories and different "schools" of thought and study, and in the different groups and individuals among the social scientists who question the methods and methodology of other groups. And yet it is always assumed that a certain spirit, atmosphere, and "method" may be recognized in all really scientific research. If it is the function of social research to find out about the whole social process it must be evident

[3] From topical outlines, quoted by permission.

Sumber: Odum, Howard W and Jocher, Katharine. 1929: 24. An Introduction to Social Research. New York: Henry Holt nd Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Istilah 'Metodologi' diperkenalkan oleh para penulis di abad ke-19 berkenaan dengan logika untuk menemukan kebutuhan adanya kategori melalui prosedur yang dapat didiskusikan sehingga kebenaran ilmiah yang baru dapat ditemukan. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 102) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak '*The term 'methodology' seems to have been devised by nineteenth-century writers on logic to meet the need for a category under which they might discuss the general procedure by means of which new scientific truth is discovered.*' yang salinan kutipannya saya sajikan berupa gambar ini:

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sciences to take over, translate and adapt,"[30] in order that the influence of logic may not be detrimental. Even *Aristotle* recognized this principle. "We must not accept a general principle from logic only, but must prove its application to each fact; for it is in facts that we must seek general principles, and these must always accord with facts from which induction is the pathway to general laws."[31] According to *Frederick Teggart*, "the modern philosopher occupies himself with criticism rather than with construction, and that he regards as his special activity the criticism of the methods as well as the analysis of the fundamental concepts and assumptions of the sciences. . . . Philosophy follows science; and it is of the utmost importance to observe, in the present connection, that while it investigates methodology, philosophy does not devise methods for men of science to follow. As the sciences progress in actual insight, they must complete, improve, refine, and extend their methods; the logician simply analyzes the methods employed by the sciences at a given time. . . . Logic does not justify, it describes method; it accepts the actual procedure of the sciences."[32] *Floyd N. House's* statement of the purpose of logic in relation to scientific method is comprehensive. "The term 'methodology' seems to have been devised by nineteenth-century writers on logic to meet the need for a category under which they might discuss the general procedure by means of which new scientific truth is discovered. In other words, for the newer philosophy which has evolved by grappling with the problems created by the development of natural science, logic is an instrumental science—instrumental, that is, not in the defense of cherished beliefs, but in the systematization of knowledge derived from experience and subject to verification by observation and experiment."[33]

[30] G. M. Graham, "The Logics and the Social Sciences," *Social Forces*, VII, 24–32.

[31] L. L. Woodruff, *Development of the Sciences*, p. 217.

[32] *Theory of History*, pp. 50–51.

[33] *General Methodology*, Publications of the American Sociological Society, XXI, 165–173.

[34] T. V. Smith, "Philosophical Ethics and the Social Sciences," *Social Forces*, VII, 17–24.

Sumber: Odum, Howard W and Jocher, Katharine. 1929: 102. An Introduction to Social Research. New York: Henry Holt nd Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

The origin of methodology terlacak ada pada *Aristotle's logic* yang diakui sebagai '*The beginning of the modern scientific method*' yakni metode deduksi. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 101) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak:

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Philosophy, Logic, and Scientific Method. If, as Dean Pound reminds us, all sciences find their genesis in Greek Philosophy it is not surprising to find the origins of methodology in Aristotle's logic, sometimes credited as being the beginning of the modern scientific method. And if deductive logic be founded upon Aristotle, one philosopher—beginner of science—then inductive logic may be said to have its basis in Bacon, another philosopher—beginning scientist—who initiated us into the inductive method in the more modern sense. And if we think of science again in terms of intellectual processes, or orientation, or as right thinking, it becomes clear at once that philosophy again has contributed heavily through the realm of logic.

Will Durant interprets logic as "the study of ideal method in thought and research, observation and introspection, deduction and induction, hypothesis and experiment analysis and synthesis. Such are the forms of human activity which logic tries to understand and guide; it is a dull study for most of us, and yet the great events in the history of thought are the improvements men have made in their methods of thinking and research."[28] Thus *Aristotle's* logic was simply the art and "method of correct thinking," the method of every science. *Francis Bacon's* logic was built upon the new needs for new methods of study, for the advancement of knowledge and for the making fertile of philosophy and science. "If we would rate things according to their real worth, the rational sciences are the keys to all the rest," which is not unlike the Hegelian dictum that the laws of nature and the laws of logic are one.[29] As a matter of fact the natural sciences have developed certain methodology which assumes the proportion of logic so that the "scientific method" becomes analogous perhaps to Mill's canons of logic. Yet much of the logic of the physical sciences is not applicable to the social studies; it "is left to each of the social

[27] *Contemporary Economic Thought*, p. 456.
[28] *The Story of Philosophy*, Introduction and ch. ii.
[29] *Ibid.*, chs. iii and iv.

Sumber: Odum, Howard W and Jocher, Katharine. 1929: 101. An Introduction to Social Research. New York: Henry Holt nd Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Hanya ada 2 metode penelitian yakni (1) induktif dan (2) deduktif. Bila pada metode deduksi, *deductive reasoning* dan proses *categorical syllogism* terjadi manakala otak saya memikirkan *general principle to a particular case* yang saya yakini merupakan uraian dari *general principle,* tidak begini pada induksi yang berawal pada *individual cases* lalu saya pikirkan bagaimana dapat menunjukan bahwa *individual cases* ini merupakan uraian dari suatu *universal laws.* Pada buku karya Joyce, George Hayward (1916: 215) berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co) tercetak '... *on the Categorical Syllogism, we dealt at some length with the subject of deductive reasoning. We saw how it is the process by which the mind passes from a general principle to a particular case, which falls under that principle.... Induction is the legitimate derivation of universal laws from individual cases'.* Metode Induksi sangat tepat digunakan untuk menemukan konsep baru, teori baru hingga menjadi dasar pembuktian ilmiah adanya suatu ilmu.

Pada buku ini, *individual cases* diantaranya merupakan kata '*administration*' yang saya teliti fakta sejarahnya. *Individual cases* dapat saja berupa fakta sejarah yang dicatat berupa *individual events.* Pada buku karya Lewis, George Cornewall (MDCCCLIL) yang berjudul '*A Treatise on the Methods of Observation and Reasoning in Politics*'. *Vol. 1 in 2 Volumes* (London: John W. Parker and Son, West Strand) tercetak '*Historical facts are noted and recorded as individual events, clothed in all their circumstances: they are described with reference to the actors concerned in them, to the time when, and the place where, they occurred. The object of the describer is to individualize that particular - fact, not to refer it, by a process of abstraction, to any genus or species; or to employ it as a stepping-stone to an ulterior conclusion'.*

Pengertian Metode

Metode merupakan cara yang tepat untuk mengerjakan sesuatu. Pada buku karya Crabb, George (1882: 645) berjudul '*English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers ti which is Now Added an Index to the Words. New Edition with Additions and Corrections'* (New York: Harper & Brothers, Publishers) tercetak '*Method ... signifying the ready or right way to do a thing*'. Kutipannya tergambar seperti ini:

ORDER, METHOD, RULE.

ORDER (*v. To dispose*) is applied in general to everything that is disposed; METHOD, in French *méthode*, Latin *methodus*, Greek *μεθοδος*, from *μετα* and *οδος*, signifying the ready or right way to do a thing; and RULE, from the Latin *regula*, a rule, and *rego*, to govern, direct, or make straight, the former expressing the act of making a thing straight or that by which it is made so, the latter the abstract quality of being so made, are applied only to that which is done; the *order* lies in consulting the time, the place, and the object, so as to make them accord; the *method* consists in the right choice of means to an end; the *rule* consists in that which will keep us in the right way. Where there is a number of objects there must be *order* in the disposition of them; where there is work to carry on, or any object to obtain, or any art to follow, there must be *method* in the pursuit; a tradesman or merchant must have *method* in keeping his accounts; a teacher must have a *method* for the communication of instruction: the *rule* is the part of the *method;* it is that on which the *method* rests; there cannot be *method* without *rule*, but there may be *rule* without *method;* the *method* varies with the thing that is to be done; the *rule* is that which is permanent, and serves as a guide under all circumstances. We adopt the *method* and follow the *rule*. A painter adopts a certain *method* of preparing his colors according to the *rules* laid down by his art.

He was a mighty lover of *regularity* and *order*, and managed his affairs with the utmost exactness. BURNET.

It will be in vain to talk to you concerning the *method* I think best to be observed in schools. LOCKE.

A *rule* that relates even to the smallest part of our life, is of great benefit to us, merely as it is a *rule*. LAW.

Order is said of every complicated machine, either of a physical or a moral kind: the *order* of the universe, by which every part is made to harmonize to the other part, and all individually to the whole collectively, is that which constitutes its principal beauty: as rational beings, we aim at introducing the same *order* into the moral scheme of society: *order* is, therefore, that which is founded upon the nature of things, and seems in its extensive sense to comprehend all the rest. *Method* is the work of the understanding, mostly as it is employed in the mechanical process; sometimes, however, as respects intellectual objects. *Rule* is said either as it respects mechanical and physical actions or moral conduct. The term *rule* is, however, as before observed, employed distinctly from either *order* or *method*, for it applies to the moral conduct of the individual. The Christian religion contains *rules* for the guidance of our conduct in all the relations of human society.

The *order* and *method* of nature is generally very different from our measures and proportions. BURKE.

Their story I revolv'd; and reverent own'd
Their polish'd arts of *rule*, their human virtues. MALLET.

As epithets, *orderly*, *methodical*, and *regular*, are applied to persons and even to things according to the above distinction of the nouns: an *orderly* man, or an *orderly* society, is one that adheres to the established *order* of things; the former in his domestic habits, the latter in their public capacity, their social meetings, and their social measures. A *methodical* man is one who adopts *method* in all he sets about; such a one may sometimes run into the extreme of formality, by being precise where precision is not necessary: we cannot speak of a *methodical* society, for *method* is altogether a personal quality. A man is *regular*, inasmuch as he follows a certain *rule* in his moral actions, and thereby preserves a uniformity of conduct: a *regular* society is one founded by a certain prescribed *rule*. So we say, an *orderly* proceeding, or an *orderly* course, for what is done in due order: a *regular* proceeding, or a *regular* course, which goes on according to a prescribed *rule;* a *methodical* grammar, a *methodical* delineation, and the like, for what is done according to a given *method*.

Sumber: Crabb, George. 1882: 645 & 646. English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers ti which is Now Added an Index to the Words. New Edition with Additions and Corrections. New York: Harper & Brothers, Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

Pendekatan, Metode dan Teknik

Istilah pendekatan, metode dan teknik kerap kali digunakan tumpang tindih sehingga ketiganya seakan mengandung pengertian yang sama. Istilah 'Pendekatan' pada penelitian ilmiah digunakan untuk menunjukan tujuan analisis dan pengantar ('*Approach*' *is the all-inclussive characterization used partly for the purposes of the analysis and introduction*). Istilah 'Metode' digunakan untuk menunjukan pendekatan yang lebih rinci, khusus, terintegrasi dan merupakan prosedur rencana penelitian yang terpadu ('*Method*' *implies the more specialized, integrated and unified plan of procedure*). Istilah 'metode' digunakan berkenaan dengan *the case, the survey, the experimental, the historical,* dan *the statistical* sedangkan istilah 'Teknik' digunakan untuk mekanisme yang nyata dan sempurna serta alat yang digunakan pada penelitian ilmiah ('*Techniques*' *refer to to the still more concrete and perfected mechanisms and devices to attack*).. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 21 & 22) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak:

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It is pointed out elsewhere, and the theme developed through illustration and discussion, that the use of the terms "approach," "methods," and "techniques" are necessarily approximate. And while the distinctions may be made quite clear in concept and theory, in actual treatment there is sometimes overlapping and synonymous usage. In general, "approach" is the all-inclusive characterization used partly for the purposes of analysis and introduction; "method" implies the more specialized, integrated and unified plan of procedure; while "techniques" refer to the still more concrete and perfected mechanisms and devices of attack. Here again, however, it must be urged that no exact meaning to these and other similar terms is yet possible. Thus if we use the term "technique" in the larger sense of social research, it still means a more concrete device and mechanism than are involved in the concept "social science," and there is no inconsistency in this usage as opposed to that of many specialized "techniques" within the whole field of research itself. So, too, the use of the word "method" in the chapters dealing with the *case*, the *survey*, the *experimental*, the *historical* and the *statistical*, is both a general term and a special one in that it refers to the present status of these "specialized, integrated and unified plans." In reality they are "methods." Other variations of the term method and its many subdivisions throughout the book must be considered approximate in that they are rather hypothetical "settings" which in turn must be analyzed and examined critically.

Sumber: Odum, Howard W and Jocher, Katharine. 1929: 21 & 22. An Introduction to Social Research. New York: Henry Holt nd Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Ada juga yang memahami istilah metode sebagai '*techniques of investigation*' (Odum, Howard W dan Jocher, Katharine, 1929: 22). Pada praktiknya istilah metode meliputi kegiatan observasi dan wawancara dalam rangka menemukan fakta ilmiah, juga meliputi metode statistik dan data kasus. Sedangkan secara konseptual, istilah metode untuk menunjukan analisis, baik berupa analisis masalah umum (*general problems*), pengaruh, fakta, hipotesis, verifikasi maupun konsep baru (Odum, Howard W dan Jocher, Katharine, 1929: 23 & 24). Salinan kutipan halaman 22 dan 23 saya sajikan berupa gambar ini:

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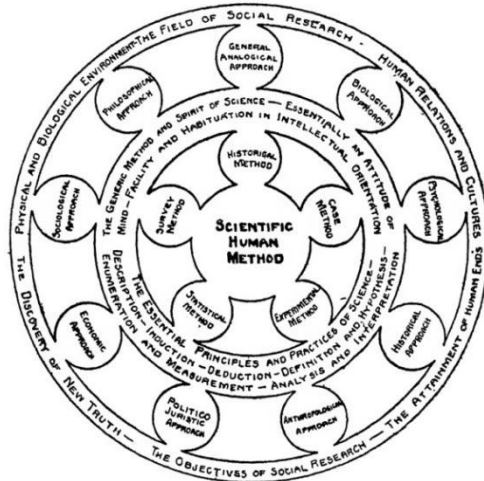
determined to regard "method" "realistically as a term of variable usage, and to comprise within their study illustrations drawn from various modal points along the hypothetical scale of meaning."

UNITY AND INTERRELATION IN METHODS OF SOCIAL RESEARCH

A TYPE OF ANALOGICAL AND RELATIONAL CONCEPT

The range and meaning of "method" may be illustrated further by the types of analyses which are being undertaken in the Case Book. One part, for instance deals primarily with analyses in which the *technical meaning of method* is prominent, such as those involving observation, testimony, the interview as a means of

duction to Social Research such "variable usage" appears to be advantageous in that there is likely to appear more critical analyses and more points of attack. The larger the number of analyses, provided their limitations and objectives are recognized, the more opportunity will there be for a later synthesis.

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fact-finding; and those relating to *experimentation in social science.* Another part deals with analyses in which the *logical meaning of method* is prominent, such as those portraying inferences from statistical and case data. Still another part deals with analyses in which the *conceptual meaning of method* is prominent, such as *sociological* analyses relating to general problems of social existence and social change; *historical* analyses showing the influence of various concepts upon the direction and scope of historical study; *psychological* analyses; showing various conceptions of the nature of the psychological fact; *anthropological* analyses, exhibiting relationships between concepts and techniques in anthropological research; *economic analyses,* concerned with concepts, hypotheses and verifications in economic science; analyses concerned with concepts of *politics;* analyses exhibiting changing concepts in the field of *legal scholarship;* and analyses based upon new concepts in the field of *human geography.*[3] Included in the various types are some three score analyses made by almost an equal number of specialists from a widely selected group of studies and publications in the several social sciences.

Sumber: Odum, Howard W and Jocher, Katharine. 1929: 23 & 24. An Introduction to Social Research. New York: Henry Holt nd Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Merunut pengertian konsep metode yang dikemukakan oleh Wesley C. Mitchell terbaca bahwa secara konseptual metode merupakan cara untuk mengerjakan suatu benda nyata (*a way to doing things*). Merunut penekanan yang dinyatakan oleh Lester F. Ward terbaca bahwa meski ilmu berkenaan dengan fakta ilmiah yang nyata, baik hukum alam, rupa dan jenis, rangkaian substansi, formasi komposisi, orisinalitas, maupun fenomena alam, namun metode ilmiahnya untuk penelitian ilmiah rumpun Ilmu Sosial tetaplah sama. Peneliti yang melakukan kegiatan observasi, percobaan, mencatat hasil temuan sudah seharusnya tidak hanya mempublikasi luaran maupun temuan yang dihasilkan, tetapi terpenting adalah peneliti menjelaskan metode ilmiah yang digunakan, tak hanya mengumumkan temuannya tetapi terjelaskan pula bagaimana peneliti dapat menemukan hasil dan luaran penelitian (... *not only what he has found, but how he found it*). Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 25) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak:

that the search for *new* truth will be a major task. New truth in turn will include new data, not only in fields already investigated, but in other fields to be discovered. But equally important in social research is the task of initiative and inventiveness in the discovery and utilization of new techniques and methods.

This is the import of *Karl Pearson's* dictum that the unity of all science lies in method and of *Wesley C. Mitchell's* concept of method as a way of doing things, the best definitions of which are found in illustration. *Lester F. Ward* emphasized this general meaning of method years ago. Science, he held, "whether it relates to the law of gravitation, to the nature of sound, to spectrum analysis, to the different kinds of rays, to the properties of the various substances and gases, to the formation of chemical compounds, including the complex organic compounds, to the study of protoplasm, to the investigation of cells and unicellular organisms, to the origin of tissues and their distribution in the metazoan body, to the phenomena of reproduction, to the nature and functions of nerves and of the brain,—wherever the field may be, the general method of all earnest scientific research is the same. Every investigator chooses some special line and pushes his researches forward along that line as far as his facilities and his powers will permit. If he is a master, he soon exhausts the resources and appliances of the library and laboratory and proceeds to construct a technique of his own for his special purposes. He observes and experiments and records the results. Whenever important results are reached, he publishes them. He not only publishes the results, but he describes his methods. He tells the world not only what he has found, but how he found it." [4]

[4] *Pure Sociology*, pp. 8–9.

Sumber: Odum, Howard W and Jocher, Katharine. 1929: 25. An Introduction to Social Research. New York: Henry Holt nd Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Pada dasarnya metode adalah logika dan logika sendiri merupakan *law of causation.* Pada buku karya Ward, Lester F. (1911: 45) berjudul '*Pure Sociology a Treatise on the Origin and Spontaneous Development of Society. Second Edition'* (New York: The Macmillan Company. London: Macmillan & Co., Ltd) tercetak:

CHAPTER IV

METHODOLOGY

THE basis of method is logic, and the basis of logic is the sufficient reason or law of causation. The object of method is clearness, and what is logical is usually clear. At least, the same subject, however abstruse or inherently difficult, will be clearer of comprehension if logically presented than if incoherently presented. This principle lies at the foundation of style. I always observed that there was the greatest difference in the ease with which I could read different authors, although all masters in their own field, but it was a long time before I discovered the reason for this. I saw that it had

Sumber: Ward, Lester F. 1911: 45. Pure Sociology a Treatise on the Origin and Spontaneous Development of Society. Second Edition. New York: The Macmillan Company. London: Macmillan & Co., Ltd. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Riset dan *Scientific Thing*

Semua benda yang tidak saya mengerti merupakan *scientific thing.* Batu Levria MAR (0110) yang padanya terdapat *self similarity* merupakan benda fraktal yang hingga kini tidak saya mengerti. Jika besok saya ataupun peneliti lain mengerti batu ini maka batu ini tidak lagi *scientific thing.* Pernyataan Charles F. Kettering pada buku karya Boyd, T. A. (1935: 5) berjudul '*Research the Pathfinder of Science and Industry'* (New York and London: D. Appleton-Century Company) tercetak: '*A scientific thing is just anything you don't understand. As soon as you do understand it, it isn't scientific any more'*. Salinan kutipan lengkapnya saya sajikan berupa gambar ini:

DEFINITION 5

search is elemental and universal. It is applicable to any field of human endeavor.

This view of the meaning of research would, to be sure, be considered as too rudimentary by those who like to restrict the use of the word to investigations in the field which is commonly called science. But so to restrict the meaning of research appears to be no more justifiable than to say that only those who study physics, or chemistry, or mathematics, really study, and that a man who studies bricks, or bees, or butterflies, does not study. Science, according to R. A. Millikan, is after all merely the growth of man's understanding of his world, and hence of his ability to live wisely in it. Surely there is nothing abstruse or incomprehensible about that. It is perhaps because people commonly think of research as applying only within the field of conventional science that they do not understand it, for to most people "scientific" matters mean those that are obscure. Charles F. Kettering has said that "a scientific thing is just anything you don't understand. As soon as you do understand it, it isn't scientific any more." One of its readers wrote to *Collier's* asking whether the popular excitement attending the visit of Albert Einstein to the United States during the winter of 1930 was due to the passion for mystery stories current at that time.

Sumber: Boyd, T. A. 1935: 5. Research the Pathfinder of Science and Industry. New York and London: D. Appleton-Century Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Riset Administrasi

Riset merupakan kegiatan mencari ide baru maupun pengertahuan baru (*research may consist of a search for new ideas or knowledge, or of the testing of the validity of ideas already advanced*). Riset juga dipahamai sebagai upaya untuk meningkatkan sesuatu (*research may consist of the effort to improve something*). Jelasnya riset merupakan kegiatan investigasi dan eksplorasi, yakni investigasi tentang apa yang terpikirkan berdasar bidang ilmu tertentu (*to investigations on what is thought of as the plane of science*) dan eksplorasi pengetahuan maupun pendalaman fakta (*to explorations either on the frontier of current knowledge or beyond it*). Definisi ini yang membedakan *research* terhadap *development,* yakni *development* merupakan bentuk kegiatan percobaan yang sistematis dengan tujuan meningkatkan kualitas seni maupun memanfaatkan produk riset. Pada buku karya Boyd, T. A. (1935: 8 & 9) berjudul '*Research the Pathfinder of Science and Industry'* (New York and London: D. Appleton-Century Company) tercetak:

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electric equation; third, the equation of the interconvertibility of mass and energy; and, fourth, the famous theory of relativity.

Research may consist of a search for new ideas or knowledge, or of the testing of the validity of ideas already advanced. Galileo went up on the leaning tower of Pisa to make a practical test of the validity of the then common belief that a heavy body falls faster than a light one. By showing there that weight has no effect upon the velocity of falling bodies, he disproved an idea held for centuries. No doubt the confidence which Galileo had as he went up the tower was based upon prior experiments conducted in the privacy of his laboratory.

Research may consist of the effort to improve something, whether it be a machine or a medicine. James Watt, by his classical experiments, transformed the crude and imperfect steam engine of his time into an effective means of developing power. As a result of the continual efforts of a host of experimenters, the motor car has gradually evolved from a mere horseless carriage with buckboard body and spindly wheels, whose most useful accessory was a tow rope, into the satisfactory, self-reliant, and beautiful car of to-day. Research has worked many improvements in the field of medicine, such as the discovery that even leprosy and syphilis can be cured; that diabetes can be controlled with insulin, and pernicious anemia with extract of liver; that germ diseases can be largely controlled by sanitation, and that some of them can be immunized against and cured as well.

There are some who make a distinction between "research" and "development." Use of the word "research" is restricted in their meaning to investigations on what is thought of as the plane of science, or to explorations either on the frontier of current knowledge or beyond it. By "development" they mean that form of systematic experimentation which is aimed directly at improvement in the arts, and which in many instances adapts and uses the product of the more fundamental "research." What may appear to be a somewhat similar distinction is drawn in the next chapter in defining the difference between pure research and applied. But both forms of investigation are here called research, for both are thought of as really being research. After all, they differ more in intent than in character.

Having thus attempted to define in general terms what research is, it may be worth while to suggest something also about what research is not. Being a search for *new* knowledge, research is not, for instance, the gathering of conventional items of information about an already established product. The testing of materials to determine whether they meet certain specifications is thus not research. Research does not apply to a routine form of inspection such as that is, even though the actual carrying out of the tests themselves might be thought of as experimentation. As a parallel,

Sumber: Boyd, T. A. 1935: 8 & 9. Research the Pathfinder of Science and Industry. New York and London: D. Appleton - Century Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Laboratorium adalah tempat riset untuk (1) melakukan kegiatan percobaan terhadap benda yang telah eksis (*already in existence*), laboratorium ini merupakan *testing laboratory* dan (2) melakukan kegiatan studi maupun pengkajian terhadap benda yang dapat diupayakan agar menjadi eksis sebagai fakta ilmiah (*that which could exist*), laboratorium ini merupakan *research laboratory.* Pada buku karya Boyd, T. A. (1935: 10) berjudul '*Research the Pathfinder of Science and Industry'* (New York and London: D. Appleton-Century Company) tercetak:

> *'Both the testing laboratory and the research laboratory have to measure things, you see. But there is a very real difference between the research laboratory and the testing laboratory. That difference is this: The testing laboratory concerns itself merely about that which is already in existence, while the research laboratory is concerned about that which could exist, if only there were enough imagination and knowledge to bring it into being.'*

Scientific Research

Penelitian ilmiah tak ubahnya ibarat eksplorasi tentang suatu kali yang belum terjamah dan terletak pada suatu lokasi yang persisnya belum terketahui. Pada buku karya Boyd, T. A. (1935: 269) berjudul '*Research the Pathfinder of Science and Industry'* (New York and London: D. Appleton-Century Company) tercetak '*Scientific research .... is like the exploration of a strange river in an unknown country*'. Bagi saya, kalimat yang tercetak pada buku karya Boyd ini mengingatkan pada pengalaman saya saat mengobservasi kali tempat temuan Batu Levria MAR (0110) yang memang jarang dikunjungi orang serta kerja keras menuliskan temuan batu berdasar teori yang belum saya ketahui, sehingga menterpaksai saya mendasarkan penjelasan berdasar pada filosofi maupun petunjuk geometris serta prinsip-prinsip logika agar dapat ternyatakan sebagai penelitian ilmiah. Salinan halaman 269 saya sajikan berupa gambar ini:

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improved as to permit messages to be transmitted over it at speeds many times those possible before.

But nevertheless, as she always does, nature had given a truthful answer to every question about the magnetic qualities of iron that had been properly put to her up to that time. Previous investigators had simply not taken the trouble to quiz her minutely enough. So the problem of the research worker has not necessarily been solved when he first wrings from nature a reply to some question of his. The answer may be only a part of the truth.

"Scientific research," it was said in a recent publication of the Metropolitan Life Insurance Company, "is like the exploration of a strange river in an unknown country. We pass one bend and we learn that the river reaches a certain point flowing from the east. That much is gained. Then we push on and we find that beyond another turn our river which has seemed to come from the east is really formed by two tributaries entering respectively from the north and south. The first observation was correct. We do not have to unlearn what we have learned but to add new knowledge to the old."

Nature placed on the witness stand does not need to be sworn in. She will tell the truth, and nothing but the truth. But as for getting her to talk in the first place and then to tell the *whole* truth, those are often very difficult matters indeed.

Sumber: Boyd, T. A. 1935: 269. Research the Pathfinder of Science and Industry. New York and London: D. Appleton - Century Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Luaran Penelitian
Terkadang peneliti tidak terpikirkan bahwa luaran penelitian yang dihasilkan akan menjadi produk yang membidani lahirnya temuan lain yang lebih bermanfaat, efisien, praktis dan dapat diproduksi massal di seluruh dunia. '*The telephone itself is a by-product of the effort to make a harmonic telegraph*'. Kalimat ini tercetak pada buku karya Boyd, T. A. (1935: 271) berjudul '*Research the Pathfinder of Science and Industry'* (New York and London: D. Appleton-Century Company).

Forward-Looking Institution
Istilah '*Forward-Looking Institution*' pernah dinyatakan oleh Bacon mengomentari kebijaksanaan dan reputasi Solomon yakni Solomon's House yang merupakan *research laboratory* tentang Atlantis. Pada buku karya Boyd, T. A. (1935: 140) berjudul '*Research the Pathfinder of Science and Industry'* (New York and London: D. Appleton-Century Company) tercetak:

> *It was perhaps because of Solomon's reputation for wisdom that Bacon called this fabled institution of The New Atlantis by Solomon's name. The wisdom implied here is the wisdom of establishing such a forward-looking institution, and not, it should be said, any peculiar sagacity on the part of the individual workers in it. "The end of our foundation," said the father of Solomon's House, "is the knowledge of causes, and secret motions of things; and the enlarging of the bounds of human empire, to the effecting of all things possible." How is that as a program for a research laboratory ?*

The Truth
Masalah filosofis lainnya yang saya pikirkan adalah apakah saya meneliti untuk membuktikan kebenaran menyeluruh hingga fakta ilmiah akan terjustifikasi sebagai *the truth* ataukah membatasi penelitian untuk menunjukan adanya beberapa kebenaran parsial agar menarik perhatian peneliti lainnya? Bila sikap filosofis kedua yang saya pilih, maka terpenting bagi saya haruslah meyakinkan bahwa (1) luaran riset merepresentasikan keadaan alam yang sesungguhnya sebagai fakta ilmiah; dan (2) luaran riset terhasilkan berdasar pada metodologi yang tepat. Pada buku karya Boyd, T. A. (1935: 266) berjudul '*Research the Pathfinder of Science and Industry'* (New York and London: D. Appleton-Century Company) tercetak '*The problem of the research worker is not to make sure that nature will tell the truth'.* Salinan kutipan saya sajikan berupa gambar ini:

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"There is one thing I feel strongly in respect to investigation in physical or chemical laboratories—it leaves no room for shady, doubtful distinction between truth, half-truth, whole falsehood."

The problem of the research worker is not to make sure that nature will tell the truth; but it is, first, to devise such means as are necessary to wring definite and explicit answers from her, and, second, to know whether his experimental conditions are such that the result obtained really represents nature's reply. Once nature's response has definitely been received, the truthfulness of it can be depended upon. If an explorer who has set out to question nature returns with an incorrect answer, it is either because he did not understand nature's response, or because the technique of his inquiry was so faulty that the answer he received was only static, and not a message from nature at all.

But, although if properly questioned nature can always be depended upon to tell the truth, there is such a thing as getting her to tell the truth without telling the *whole* truth. For many years nature told every experimenter that pure soft iron was a more magnetic substance than iron alloyed with other magnetic metals, such as nickel for instance. And so it happened that pure Swedish or Norway iron has always been one of the standard materials for making telephone, telegraph, and other electrical apparatus.

Sumber: Boyd, T. A. 1935: 266. Research the Pathfinder of Science and Industry. New York and London: D. Appleton - Century Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Masalah Penelitian

Pada penelitian sosial, masalah penelitian terletak pada hubungan 2 variabel, bebas dan terikat, yakni apa yang sesungguhnya terjadi dan bagaimana seharusnya. Dengan pengertian ini, penelitian tentang 1 variabel seringkali dinyatakan sebagai penelitian tanpa masalah penelitian. Masalah pada hubungan 2 variabel ini merupakan masalah penelitian berkenaan dengan metode penelitian. L. L. Thurstone pernah menyatakan bahwa masalah penelitian terkait erat dengan metode penelitian dan L. L. Thurstone menemukan kunci permasalahan metode terletak pada hubungan antara 2 variabel, untuk mengatasinya peneliti dapat menerapkan 8 langkah sebagai solusi masalah ilmiah yakni (1) adanya kebutuhan sosial; (2) kebutuhan ini harus dipandang sebagai akibat A terhadap B; (3) mendefinisikan A dan juga B; (4) mengadopsi unit pengukuran yang tepat; (5) menata langkah percobaan untuk observasi yang berpasangan; (6) analisis statistik mengenai observasi; (7) interpretasi dan (8) merumuskan masalah-masalah manakala ada keraguan interpretasi. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 28) berjudul '*An Introduction to Social Research*' (New York: Henry Holt and Company) tercetak:

> *'... L. L. Thurstone finds the key problem of method one of relationship between two variables, and sets up eight stages in the solution of a scientific problem. First, there is a felt social need; second, the phrasing of that need in terms of the effect of "A" upon "B"; third, the definitions of "A" and "B"; fourth, the adoption of a unit of measurement; fifth, an experimental arrangement for paired observations; sixth, the statistical analysis of these observations; seventh, the interpretation; and eighth, "the formulation of more problems which arise from doubts in the interpretations and from which the cycle repeats itself"* (*American Political Science Review, XIX, 112*).

Manakala metode penelitian tidak lagi menjadi masalah, maka metode yang tepat ini merupakan *method of solving the problem* yang akan menjadi *the methods of research* (Odum, Howard W dan Jocher, Katharine, 1929: 28). Pada penelitian sosial, masalah penelitian merupakan (1) masalah sintesis, kesatupaduan dan interrelasi antar beragam pendekatan, disiplin maupun metode; dan (2) bagaimana memantapkan metode ilmiah untuk diterapkan pada penelitian tentang persoalan-persoalan manusia. Yang pertama merupakan masalah berkenaan dengan ketepatan metode dan kedua merupakan masalah berkenaan dengan faktor manusia yang diteliti. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: viii) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak:

> *'The problem has appeared to us to be two-fold: one the problem of synthesis, unity, and interrelation among the various approaches, disciplines, and methods; the other the problem of inaugurating and establishing upon a firm basis the scientific method in research into human affairs. Or stated in a little different manner, one is the problem of mastery in method and the other of mastery of the human factor in social research'.*

Masalah penelitian diperlukan agar peneliti dapat menghasilkan luaran penelitian yang bermanfaat atau solusi praktis berdasarkan masalah yang jelas batasnya (*definite problem*). Hanya saja, masalah penelitian yang terbatasi jelas ini, tidak menjadikan peneliti terjerumus pada '*random*' *research* yakni proses penelitian yang dilakukan untuk memenuhi keinginan meneliti hanya pada bidang penelitian sejenis yang disukai semata maupun bidang penelitian yang lebih menarik minat peneliti. Oleh karena ini, peneliti harus sanggup mengatasi masalah penelitian yang berkembang lalu membatasi masalahnya tanpa didasarkan pada apakah batasan masalah penelitian ini berada pada *interesting subject or not.* Hal ini berarti meskipun di awal penelitian, masalah penelitian dirumuskan berdasarkan minat meneliti, namun pada proses penelitian termungkinkan masalah penelitian berkembang karena adanya temuan baru yang bisa jadi di luar minat meneliti semula. Sifat masalah penelitian semacam ini menunjukan bahwa masalah penelitian memiliki karakter dan daya tarik tersendiri baik pada masalah penelitian yang berada pada lingkup satu subjek penelitian yang sama ataupun beragam. Pada buku karya Boyd, T. A. (1935: 45 & 46) berjudul '*Research the Pathfinder of Science and Industry'* (New York and London: D. Appleton-Century Company) tercetak '... *the character and magnitude of the problems being investigated.... whether the problems under investigation are all on one general subject or whether they are of different kinds'*. Dengan begini, penelitian tidak terbatas pada bidang tertentu saja melainkan meluas meliputi keseluruhan bidang ilmu dan aplikasinya. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 29) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak:

'*It is at once clear that research is not limited to any field or to any types of material, but extends to the whole domain of science and its applications'*.

Ada 3 klasifikasi masalah penelitian yakni (1) *determination of significant fact;* (2) *matching of facts with theory* dan (3) *articulation of theory*. Pada buku karya Kuhn, Thomas S., (1996: 34) berjudul '*The Structure of Scientific Revolutions. Third Edition'* (Chicago and London: The University of Chicago Press) tercetak '*These three classes of problems -- determination of significant fact, matching of facts with theory, and articulation of theory -- exhaust, I think, the literature of normal science, both empirical and theoretical'*.

Pilihan Metode Penelitian

Ada 2 metode penelitian yang dapat dipilih yakni (1) metode induktif dan (2) metode deduktif. Bila pada metode deduksi, *deductive reasoning* dan proses *categorical syllogism* terjadi manakala peneliti memikirkan *general principle to a particular case* yang diyakini merupakan uraian dari *general principle,* tidak begini pada induksi yang berawal pada *individual cases* lalu peneliti memikirkan bagaimana dapat menunjukan bahwa *individual cases* ini merupakan uraian dari suatu *universal laws.* Pada buku karya Joyce, George Hayward (1916: 215) berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co) tercetak '*... on the Categorical Syllogism, we dealt at some length with the subject of deductive reasoning. We saw how it is the process by which the mind passes from a general principle to a particular case, which falls under that principle.... Induction is the legitimate derivation of universal laws from individual cases'*. Metode Induksi sangat tepat digunakan untuk menemukan konsep baru, teori baru hingga menjadi dasar pembuktian ilmiah adanya suatu ilmu.

Metodologi dan Kemungkinan Revisi Konsep

Merumuskan konsep sudah seharusnya memungkinkan terjadinya revisi terhadap faktor-faktor pada metodologi yang digunakan yakni revisi (1) terhadap data observasi maupun eksperimen; (2) tentang adanya kemungkinan inkonsistensi logika saat memperoleh konsep dari *conceptual apparatus* berupa *derrived concepts and their interrelations;* dan (3) untuk mencari konstruksi konseptual yang lebih sederhana dan elegan. Pada buku karya Jammer, Max., (1957: 5) berjudul '*Concept of Force A Study of the Foundations of Dynamics'* (Cambridge, Massachussets: Harvard University Press) tercetak:

Numerous factors compel the scientist to revise constantly his conceptual construction. Apart from general cultural predispositions, conditioned by specific philosophical, theological, or political considerations, the three most important methodological factors calling for such revisions seem to be: (1) the outcome of further experimentation and observation, introducing new effects hitherto unaccounted for; (2) possible inconsistencies in the logical network of derived concepts and their interrelations; (3) the search for maximum simplicity and elegance of the conceptual construction. In most cases it is a combination of two of these factors, and often even the simultaneous consideration of all of them, that leads to a readjustment or basic change of the conceptual structure. A well-known example is the Michelson-Morley experiment which revealed the independence of the velocity of light with respect to the motion of the earth, a phenomenon unaccounted for and inconsistent with the existing ether theory at

Sumber: Jammer, Max. 1957: 5. Concept of Force A Study of the Foundations of Dynamics. Cambridge, Massachussets: Harvard University Press. Gambar disajikan oleh Levri Ardiansyah (2017).

Deductive Method

Jika saya memilih metode induksi, maka predikat harus saya temukan bukan berdasarkan analisis melainkan sintesis yakni berdasarkan pengalaman yang saya dapatkan melalui observasi (*In these judgments the predicate is found to belong to the subject not by the analysis of the notions, but by experience* (Joyce, George Hayward, 1916: 215). Berbeda manakala saya menggunakan *deductive reasoning,* predikat saya rumuskan dengan cara menganalisis *general principles* untuk menunjukan koneksi antara subjek terhadap predikat. *Universal laws* harus saya persepsi sebagai suatu relasi akibat – sebab. Saya dapat mengetahui ‘Akibat’ berdasarkan pengalaman saya saat mengajar mata kuliah ‘Dasar-dasar Ilmu Administrasi’ selama 18 tahun sesuai dengan prinsip-prinsip administrasi yang dipahami secara internasional. Pertanyaannya ‘Apakah sebabnya’? Terdapat banyak hal maupun peristiwa yang dapat diduga merupakan sebab, diantaranya (1) *reason of the effect;* (2) *circumstance* berupa keadaan, baik itu kondisi geologis maupun posisi letak geografis; (3) bisa juga kualitas diduga sebagai sebab yakni kualitas yang selalu menunjukan hasil yang sama berupa *effect*; dan (4) karakter administrasi. Pertanyaannya, ‘Manakah sebab yang dapat saya nyatakan sebagai *the cause*’?

Jika saya nyatakan kualitas merupakan sebab, maka pada metode induksi, kualitas ini harus saya nyatakan sebagai *one quality ‘q’ from all others ‘Q’.* Inilah *individual case* yakni ‘*the object of a universal concept*’, artinya kualitas *‘q’* merupakan objek penelitian saya dari suatu konsep tentang kualitas Q yang universal. Tetapi tidak serta merta ‘*this particular ‘q’ is the cause of D’* bahwa kualitas *‘q’* yang tertentu ini dapat langsung saya nyatakan sebagai sebab terjadinya *D* berupa adanya temuan tentang kata awal nama administrasi. Pernyataan yang seharusnya saya rumuskan adalah ‘*The nature of quality Q has ‘q’ as its effect* ’ yakni kualitas q merupakan akibat dari terurainya kualitas Q. Dengan begini, kualitas *‘q’* yang semula saya persepsi sebagai *effect* tergambarkannya, harus juga saya persepsi sebagai *effect* terurainya kualitas. Hal ini sebenarnya merupakan petunjuk bahwa (1) simpulan tidak semata berdasar premis: dan (2) metode deduksi yang saya gunakan mulai bekerja dengan saya memisahkan mana yang esensi dan mana yang bukan esensi. Pada buku karya Joyce, George Hayward (1916: 217) berjudul ‘*Principles of Logic. Second Edition*’ (London: Longman, Green and Co) tercetak ‘*We do not argue from premisses to conclusion. Our work is done when we have separated the essential from the non-essential, when we have discovered the true causal relation”.*

Sebagaimana metode induksi, metode deduksi juga tergantung pada akurasi penentuan sebab dan akibat (*every induction depends upon the accurate determination of cause and effect,* (Joyce, George Hayward, 1916: 219). Terdapat banyak definisi tentang *cause,* diantaranya dikemukakan oleh Dr. Thomson seperti tercetak pada buku karya Joyce, George Hayward (1916: 220) berjudul ‘*Principles of Logic. Second Edition*’ (London: Longman, Green and

Co) yakni '*a cause as that which makes a thing to be what it is*'. Kutipannya terbaca seperti ini:

> *'How are we to define a Cause ? Many and various are the definitions offered us. One that is given by Dr. Thomson {Laws of Thought, p. 2i8), seems to come very near what we really signify by that term. " We mean,"he says, " by the cause of a thing, the sum of the facts ' to which it owes its being." A definition practically identical with this, was in fact frequently employed by the Scholastics. But since this formula is, as will appear, open to a certain ambiguity, it seems preferable to avail ourselves of another expression having the same significance, and define a cause as that which makes a thing to be what it is'.*

Definisi *the cause* ini berbeda terhadap definisi *condition* yang merupakan jalan untuk *the cause* memproduksi *the effect.* Pada buku karya Joyce, George Hayward (1916: 221) berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co) tercetak '*A condition is that which in one way or another enables the causes to act in the production of the effect, but which does not make the thing what it is'.* Definisi kondisi ini berarti (1) kondisi bukan merupakan *the origin of the effect* dan (2) kondisi merupakan *determining cause* (*cause determinants*).

Generating Hypotheses

Hipotesis pada metode deduksi merupakan '**Hipotesis Kerja**' yakni suatu pernyataan yang dapat diuji (*a statement that can be tested*). Metode yang saya harus terapkan adalah *reading with old and new eyes,* yakni membaca kembali pemikiran filosofis awal. Hasilnya adalah pengetahuan baru.

Literature Reviews

Literature review yakni membaca beberapa penelitian ilmiah yang terkait erat dengan topik penelitian. Umumnya *literature reviews* dilakukan peneliti dengan menerapkan (1) *narrative review,* yaitu mendeskripsikan *literature review* dengan menggunakan kata-kata seperti misalnya melalui diskusi; dan (2) *meta-analysis,* yaitu menggunakan bantuan statistik untuk mengkombinasikan beberapa kesimpulan yang didapat dari proses *literature reviews.*

Historical Method
Metode sejarah merupakan metode ilmiah yang digunakan untuk menentukan fakta masa lalu berupa fakta kearsipan (*facts of record*) secara rinci. Metode sejarah dapat digunakan melalui kegiatan observasi langsung manakala peristiwa masa lalu masih berlangsung hingga kini dan bisa juga observasi tak langsung yakni melalui studi tentang jejak yang terlacak (*the trace which leave behind them*). Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 218) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak:

Franklin H Giddings says of the historical method, "In point of logic scientific method in history is only an application of those procedures of scrutiny which all sciences avail themselves of to determine fact, but it is an application of them to one class of facts in particular, and it has become highly detailed and technical The facts with which history has particularly to do are facts of record, and these are indispensable not only for history in the narrower meaning of the word but also in every domain of science and art, since an observation once made exists thenceforth only as recorded Therefore, in the systematic accumulation and comparison of observations in any field of scientific study, it is necessary to use or to rely upon the technical procedures of historical criticism " [22] On the other hand, *Ch V Langlois* and *Ch Seignobos* maintain that "events can be empirically known in two ways only by direct observation while they are in progress, and indirectly, by the study of the traces which they leave behind them . Now, the peculiarity of 'historical facts' is this, that they are only known indirectly by the help of their traces Historical knowledge is essentially indirect knowledge The methods of historical science ought, therefore, to be radically different from those of the direct sciences, that is to say, of all the other sciences except geology, which are founded on direct observation Historical science, whatever may be said, is not a science of observation at all " [23] *William F Ogburn* defines the historical method as "the description of events by the use of documents, records, and authorities . In all . . . fields . . the historical method has one common element, namely, the collection of cultural facts leading up to the phenomena In some cases getting the facts means written documents, in other cases it means digging in the soil Sometimes the method is simply descriptive In other cases considerable analysis is involved leading to inquiries into causes " [24] *F Stuart Chapin* characterizes the "modern historical method of documentary criticism" as a "highly developed technique for evaluating in truly scientific fashion the records of observations made in the past by persons now deceased " [25]

Sumber: Odum, Howard W and Jocher, Katharine. 1929: 218. An Introduction to Social Research. New York: Henry Holt and Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

William F Ogburn mendefinisikan metode sejarah (*historical method*) sebagai deskripsi peristiwa menggunakan dokumen-dokumen, arsip lainnya dan dokumen kebijakan pihak yang berwenang seperti halnya kebijakan pemerintah. Metode sejarah ini memiliki satu elemen yang umum yakni mengumpulkan fakta-fakta kultural untuk menunjukan fenomena. Pada beberapa kasus mendapatkan fakta berupa cetakan tulisan pada dokumen berupa buku ilmiah maupun arsip lainnya (*...getting the facts means written documents*). Pernyataan inilah yang saya jadikan dasar menelusuri sejarah nama yang ternyata tercetak beragam. Temuan data sejarah berupa ragam nama ini tidak hanya penting sebagai dasar analisis maupun sintesis sosiologis, namun juga pada tataran praktis akan memudahkan peneliti lain mencari data tentang administrasi pada *search engine* di dunia maya. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 218) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak: *as " the description of events by the use of documents, records, and authorities . In all ... . fields . . the historical method has one common element, namely, the collection of cultural facts leading up to the phenomena. In some cases getting the facts means written documents, in other cases it means digging in the soil Sometimes the method is simply descriptive In other cases considerable analysis is involved leading to inquiries into causes'*.

Karakteristik metode sejarah adalah pada tergunakannya dokumen-dokumen sebagai bahan dasar penelitian. Dokumen-dokumen ini merupakan arsip pengalaman, tindakan dan observasi terhadap individu yang tidak terkukung oleh definisi, klasifikasi maupun ukuran yang ketat. Hornell Hart melalui tulisannya pada *Science and Sociology," American Journal of Sociology, XXVII, 370-371'* sebagaimana tercetak pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 220) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) menyatakan bahwa *"the historical method is characterized by its use of documents as its basic materials. The documents used are almost entirely the results of the common-sense method as applied by contemporary observers That is to say, they are the records of the experiences, the acts, and the observations of individuals not attempting rigid definitions, classifications, enumerations, measurements, or correlations, and not seeking to make exhaustive investigations'*.

Data sejarah tergambarkan dari masa lalu melalui catatan maupun ingatan. Data sejarah digunakan untuk tujuan (1) merekonstruksi masa lalu berdasarkan keadaan masa kini dan (2) menganalisis peristiwa masa lalu untuk menginterpretasi melalui analogi berdasarkan ilmu pengetahuan yang telah terketahui. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 217 & 218) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak:

History and Method. From whatever angle we approach it, the fundamental characteristic of the historical method is that its data are drawn wholly from the past It seeks its subject matter in records and remains—monuments, architectural fragments, the remains of early cultures brought to light by the archæologist, strata of rock and fossil formations, all kinds and types of cumulative evidence—these and many others furnish the materials with which the historian works Information handed down by word of mouth is often considered outside the realm of historical evidence since its validity cannot be established or even estimated,[21] although tradition may be regarded as part of history These historical data have two primary purposes In the first place, they are used in an effort to reconstruct the past in the light of the present Historical evidence is frequently fragmentary There are great gaps which the historian must supply from his knowledge of the present. And even where the evidence is comparatively complete, interpretation can be made chiefly by analogy with that which is actually known This was the original purpose of history and historical method But another and perhaps more important function has been added, namely, an analysis of past events for the purpose of interpreting the structure and organization of contemporary society And here again the chief approach is through analogy although the careful historian now attempts to interpret culture patterns and psychological backgrounds The historical method and approach, therefore, envisages the reconstruction of the

past in the light of the present and the interpretation of the present structure and organization of society based upon an analytical study of the past through the analysis and interpretation of records

Sumber: Odum, Howard W and Jocher, Katharine. 1929: 217 & 218. An Introduction to Social Research. New York: Henry Holt and Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Keunikan pada Batasan Metode Sejarah

Prinsip '*No two things or events are exactly alike, and especially is it said of history that every happening is an unique occurrence*' merupakan batasan metode sejarah, yakni meskipun catatan masa lalu tentang suatu peristiwa yang sama, tetap saja ada suatu yang unik dan tak sama. Meski orang, benda, maupun peristiwanya sama, namun amat tergantung pada analogi yang diterapkan berdasarkan ilmu apa atau pengetahuan apa. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 221) berjudul '*An Introduction to Social Research'* (New York: Henry Holt nd Company) tercetak:

> ***'Limitations of the Historical Method****. The tendency to confuse similarity with identity has been shown to be the chief defect of the analogical approach to the study of any social phenomenon. In so far as the historical method implies a method by analogy this will constitute one of its chief limitations. No two things or events are exactly alike, and especially is it said of history that every happening is an unique occurrence. People, things, and events, however, are similar, and it is upon similarities that analogies are based The scarcity and fragmentary character of documents, as well as the difficulty of their location and their frequent inaccessibility, make it almost impossible at times to reconstruct an adequate picture of the past, even when knowledge of the present is drawn upon, and this also applies to the interpretation of the present through an analysis of the past.'*

Hipotesis dapat saja dirumuskan seperti halnya pernah dilakukan oleh Allen Johnson (*The Historian and Historical Evidence, pp 160-161*) berupa hipotesis yang mengundang investigasi, bukan hipotesis yang dibangun berdasarkan teori-teori yang telah mapan untuk mengendalikan penelitian (*Hypotheses "that invite investigation" and not those that attempt to establish "fixed theories that control investigation"*). Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 223) berjudul '*An Introduction to Social Research'* (New York: Henry Holt nd Company) tercetak:

> *'In the hunt for facts and the ascertaining of truth, the historian must be as conscientious as the scientist In the presentation he must be an artist, a true one - Art is selection Historians must select, they can not write history life-size, among thousands of facts they have to choose those especially important or especially characteristic'. "If science is organized knowledge, then both natural science and history are scientific, they represent the complete organization of reality from two different logical points of view/' writes Fred M Fling.' "The false assumption that history is a branch of literature, that an historical narrative must be a work of art, has seriously hampered the progress of scientific historical work." Although Allen Johnson regards the formulation of hypotheses as*

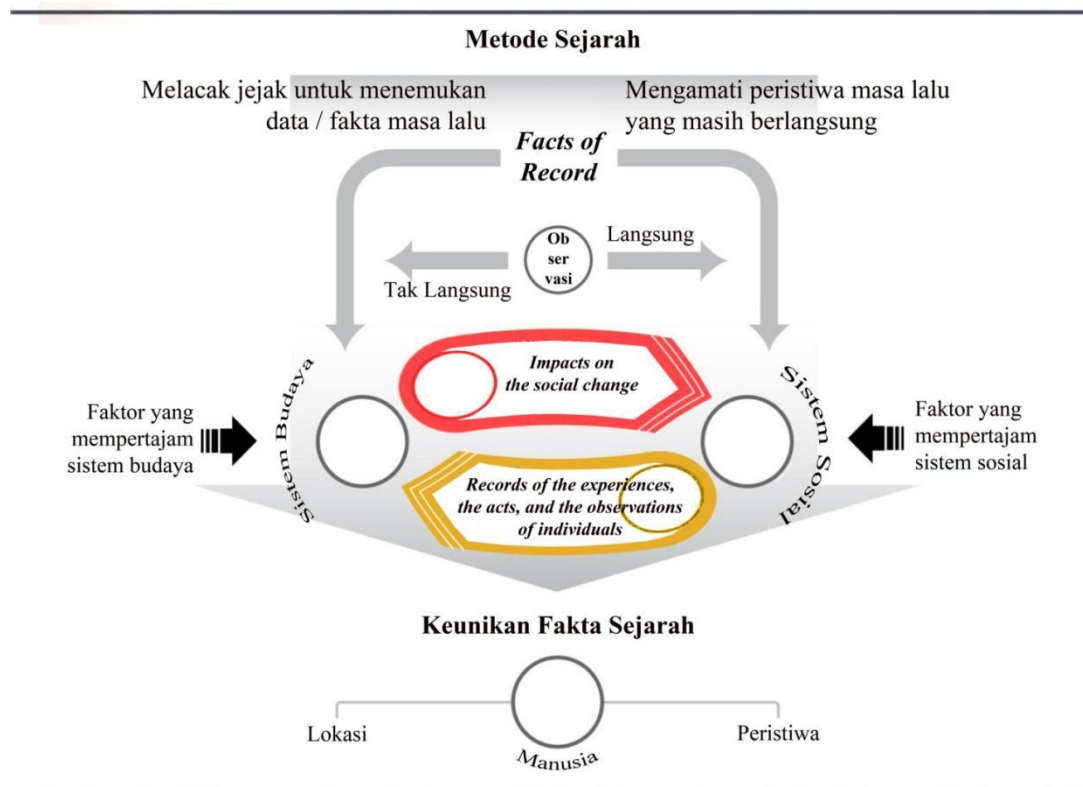
a logical step in historical method, his reference is to hypotheses "that invite investigation" and not those that attempt to establish "fixed theories that control investigation.'

Hubungan Erat Sejarah terhadap Rumpun Ilmu Sosial lainnya

Saat saya ingin menganalisis dan mensintesis keadaan administrasi negara Indonesia tahun 2018 tentu tidak dapat saya lakukan dengan hanya mendasarkan pada fakta hari ini dan kemarin. Keadaan dan kebiasaan masyarakat hari ini adalah buah perkembangan dari keadaan dan kebiasaan masyarakat masa lalu. Terlebih lagi saat saya akan melakukan analisis dan sintesis perubahan administrasi pemerintahan di Indonesia tahun 2018, haruslah bersedia menemukan fakta masa lalu yang jauh sedapat mungkin saya temukan. Bagaimanapun, manusia membuat sejarah dan melakukan banyak hal untuk terciptanya kondisi sosial tertentu (*human beings have made history and have had much to do with creating social conditions*). Manusia mengubah kebiasaannya secara amat perlahan untuk dapat tiba pada kebiasaan yang mapan. Hal ini berarti kebiasaan hari ini merupakan perkembangan dari kebiasaan masa lalu. Pada buku karya Odum, Howard W dan Jocher, Katharine (1929: 224) berjudul '*An Introduction to Social Research'* (New York: Henry Holt and Company) tercetak:

Following this line of thought, *Allen Johnson* holds that "Whatever history may or may not include, . no one is likely to mistake the significance of the word *historical* It indicates a point of view, a way of describing things, a method of approach to the study of phenomena . So long as (the) historical point of view is maintained, it does not much matter whether the study be called history or sociology, old history or new history, biography or psychoanalysis, ancient history or current events, or simply news "[50] And again, *Percy Scott Flippin* writes, "There is a close connection between history and the social sciences History and the social struggle are closely intertwined and dovetailed into each other The human element is constantly to be reckoned with, for human beings have made history and have had much to do with creating social conditions Men change their habits and customs very slowly for the tendency is for habits and customs to persist It is strikingly true that social conditions tend to repeat themselves and the social customs of today would seem to show very clear evidence of the outgrowth and development of the customs of the past It is, therefore, necessary to know the past in regard to social conditions in order to understand the origin of the social conditions of the present "[51] Not only has history contributed to the specific social sciences, but these specialisms have in turn aided in the interpretation of history According to *Ernest Scott*, "the modern science of anthropo-geography regards history as little more than geography expressed in terms of human action It is, in the language of one of its expositors, 'in no small part a succession of geographical factors embodied in events '"[52] *Edwin R. A Seligman* main-

[50] *The Historian and Historical Evidence*, p 23
[51] *Importance of Historical Research to the Teaching of the Social Sciences*, pp 51–53.
[52] *History and Historical Problems*, p. 47

Sumber: Odum, Howard W and Jocher, Katharine. 1929: 224. An Introduction to Social Research. New York: Henry Holt and Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

Sumber: karya ilustrasi Levri Ardiansyah (Agustus 2018) memakai dan memodifikasi gambar pada www.mdba.gov.au.

The Principles of Logic pada Penelusuran '_The Origins of Administration_'

Ada beberapa pertimbangan yang merupakan jawaban pertanyaan mengapa menggunakan ''*The Principles of Logic'* pada penelusuran '*The Origins of Administration'*.

Konsep Berkaitan Erat dengan Logika

Konsep harus berkaitan erat pada logika berpikir yang benar dan pada logika yang benar, mau tidak mau harus berdasarkan konsep ('*Logic therefore must deal with the concept*', Joyce, George Hayward, 1916:5). Disini, logika menekankan pada konsep yang merepresentasikan kenyataan sesungguhnya (*Logic is the science which treats of the conceptual representation of the real order* (Joyce, George Hayward, 1916:2). Suatu *judgment,* minimal terdapat 2 konsep yakni (1) konsep yang terekspresikan berupa subjek dan (2) konsep yang terekspresikan berupa atribut. Pada buku karya Joyce, George Hayward (1916:3) berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co) tercetak '*... for every judgment requires two concepts, one in which the mind expresses the subject, and the other in which it expresses the attribute'*). Kutipannya tergambar seperti ini:

We can at least analyse the judgment into simple apprehensions : for every judgment requires two concepts, one in which the mind expresses the subject, and the other in which it expresses the attribute. Thus in the example given above, I must have a concept of ***horse***, and one of ***whiteness***, in order to say 'The horse is white.' These are the elements which go to constitute the complex act of judgment, and they can be considered in isolation from it. Logic therefore must deal with the concept.

There is a third process of the mind, namely **Reasoning** or **Inference.** This is defined as, **the act by which from two given judgments, the mind passes to a third judgment distinct from these, but implicitly contained in them.** Thus if I say :—

{ ***All roses wither in the autumn ;***
{ ***This flower is a rose ;***

Sumber: Joyce, George Hayward. 1916:3. Principles of Logic. Second Edition. London: Longman, Green and Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Merumuskan konsep '*the origins of administration*' berdasarkan *principles of logic,* berarti saya harus mengurai konsep '*the origins of administration*' pada 3 bagian utama yakni (1) pernyataan menolak ataupun menerima; (2) penekanan konsep yang merepresentasikan kenyataan; dan (3) alasan-alasan tertentu. Pada buku karya Joyce, George Hayward (1916:4) berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co), *Logic* terdiri dari 3 bagian utama yakni (1) *judgment;* (2) *concept* dan (3) *inference.*

Konsep Tersusun Sebagai Kalimat Pernyataan Menerima atau Menolak (*Judgment*)

Saat merumuskan konsep '*the origins of administration*', definisi tentang *administration* harus saya nyatakan terlebih dahulu. Apakah definisi 'Administrasi adalah kerjasama ... ' dapat saya terima?. Jika saya menerima definisi ini sehingga konsep *the origins of administration* dapat saya nyatakan pada kalimat '*the origins of administration* adalah ... ' maka pernyataan penolakan ini merupakan suatu *judgment* yang *attribute*-nya berupa kebenaran kerjasama sebagai inti definisi administrasi. Disini, definisi tentang administrasi merupakan suatu subjek (Joyce, George Hayward, 1916:3 berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co). Kalimat pernyataan yang padanya terdapat *judgment, attribute* dan *subject* ini merupakan contoh *principles of logic* yakni tindakan yang terjadi pada proses berpikir berupa menerima sesuatu kebenaran (*truth*) atau menolak sesuatu lainnya (*erroneous*) merupakan uraian tentang *logic* yang dikenal sebagai *judgment* yakni pernyataan penerimaan maupun penolakan kebenaran tentang sesuatu. Kebenaran yang diterima maupun kebenaran yang ditolak ini dinamai sebagai *attribute,* sedangkan sesuatu yang dicari kebenarannya dinamakan sebagai *subject.*

Jika saya ingin mengemukakan pernyataan yang netral, tidak tegas menyatakan penerimaan maupun tidak tegas menyatakan penolakan, maka tindakan saya ini merupakan *simple apprehension.* Contohnya dapat saya rumuskan pada kalimat '*Administration as'* bukan '*Administration is ....* Dengan menggunakan kata '*As*' atau 'Sebagai' berarti saya tidak membatasi pengertian Administrasi melainkan menjelaskan Administrasi sebagai suatu ...... Bila saya bersikap netral terhadap definisi Administrasi, maka netralitas ini menjadikan definisi Administrasi ini tidak dapat dinyatakan salah, sebagaimana tidak dapat juga dinyatakan benar, sehingga sikap netral terhadap definisi Administrasi sama saja menjadikan Administrasi hanya sebagai kamus, karena *dictionary is never false or true.* Upaya merumuskan konsepsi ilmiah untuk menjelaskan konsep '*the origins of administration*' takkan pernah termulai.

Netralitas pada *judgement* pernah ditunjukan oleh Weber pada buku karya Weber, Max (1949: 1) berjudul '*The Methodology of the Social Sciences. Translated and Edited by Edward A. Shill and Henry A. Finch'* (Illinois: The Free Press) yakni saat Weber mengemukakan pengertian '*Ethical Neutrality*' yang dapat dirumuskan sebagai *value judgment* berdasarkan '*Practical, ethical or philosophical'* atau berdasarkan '*Purely logically deducible'* yakni murni berdasarkan logika dalam menjelaskan prinsip-prinsip universal. Pada sisi lain dapat juga dilakukan '*Empirical factual assertions*' berupa pernyataan yang tegas berdasarkan fakta empirik yang dialami. Kutipannya tergambar seperti ini:

The Meaning of "Ethical Neutrality" in Sociology and Economics

BY "VALUE-JUDGMENTS" are to be understood, where nothing else is implied or expressly stated, practical evaluations of the unsatisfactory or satisfactory character of phenomena subject to our influence. The problem involved in the "freedom" of a given science from value-judgments of this kind, i.e., the validity and the meaning of this logical principle, is by no means identical with the question which is to be discussed shortly, namely, whether in teaching one should or should not declare one's acceptance of practical value-judgments, deduced from ethical principles, cultural ideals or a philosophical outlook. This question cannot be discussed scientifically. It is itself entirely a question of practical valuation, and cannot therefore be definitively settled. With reference to this issue, a wide variety of views is held, of which we shall only mention the two extremes. At one pole we find (*a*) the standpoint that the distinction between purely logically deducible and empirical factual assertions on the one hand, and practical, ethical or philosophical value-judgments on the other, is correct, but that, nevertheless (or perhaps, precisely because of this), both classes of problems properly belong within the area of instruction. At the other pole we encounter (*b*) the proposition that even when the distinction cannot be made in a logically complete manner, it is nevertheless desirable that the assertion of value-judgments should be held to a minimum.

The latter point of view seems to me to be untenable. Especially untenable is the distinction which is rather often made in our field between value-judgments of a partisan character and those which are non-partisan. This distinction only obscures the practical impli-

Sumber: Weber, Max. 1949: 1. The Methodology of the Social Sciences. Translated and Edited by Edward A. Shill and Henry A. Finch. Illinois: The Free Press. Gambar disajikan oleh Levri Ardiansyah (2017) dari https://archive.org

Saya memahami *logic* merupakan proses emosi untuk memperoleh kebenaran, dimulai dari pengalaman subjektif, berpikir, berperasaan dan bertindak dengan cara membuat pernyataan. Pada buku karya Joyce, George Hayward (1916:1) berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co) tercetak '*Logic may be defined as the science which directs the operations of the mind in the attainment of truth*'. Kebenaran sendiri merupakan keterhubungan terhadap realitas (*An assertion is said to be true when itcorresponds to the reality of which the assertion is made,* Joyce, George Hayward, 1916:1), sehingga otak saya melakukan konfirmasi terhadap objek. Jika otak orang lain juga melakukan konfirmasi terhadap objek yang sama dan pernyataannya sama seperti pernyataan saya, maka pertanda suatu kebenaran sudah terjadi. Kebenaran yang sesungguhnya baru dapat terjadi manakala banyak orang menyatakan hal yang sama.

Merunut pemikiran Weber yang tercetak pada buku karya Weber, Max (1949: 51 & 52) berjudul '*The Methodology of the Social Sciences. Translated and Edited by Edward A. Shill and Henry A. Finch'* (Illinois: The Free Press) terbaca bahwa *judgment* tentang suatu kebenaran tergantung pada apakah kebenaran ini merupakan '*Existential knowledge*' yakni *knowledge* yang terbangun berdasarkan pertanyaan '*What is*' ataukah ini merupakan ''*Normative knowledge*' yakni *knowledge of what "Should be"*. Kutipannya tergambar seperti ini:

1

We all know that our science, as is the case with every science treating the institutions and events of human culture, (with the possible exception of political history) first arose in connection with *practical* considerations. Its most immediate and often sole purpose was the attainment of value-judgments concerning measures of State economic policy. It was a "technique" in the same sense as, for instance, the clinical disciplines in the medical sciences are. It has now become known how this situation was gradually modified. This modification was not, however, accompanied by a formulation of the logical (*prinzipielle*) distinction between "existential knowledge," i.e., knowledge of what "is," and "normative knowledge," i.e., knowledge of what "should be." The formulation of this distinction was hampered, first, by the view that immutably invariant natural laws, — later, by the view that an unambiguous evolutionary principle — governed economic life and that accordingly, *what was normatively right* was identical — in the former case — with the immutably *existent* — and in the latter —

[1]This essay was published when the editorship of the *Archiv fur Sozialwissenschaft und Socialpolitik* was transferred to Edgar Jaffé, Werner Sombart and Max Weber. Its form was influenced by the occasion for which it was written and the content should be considered in this light. (Marianne Weber.)

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with the inevitably *emergent*. With the awakening of the historical sense, a combination of ethical evolutionism and historical relativism became the predominant attitude in our science. This attitude sought to deprive ethical norms of their formal character and through the incorporation of the totality of cultural values into the "ethical"

Sumber: Weber, Max. 1949: 51 & 52. The Methodology of the Social Sciences. Translated and Edited by Edward A. Shill and Henry A. Finch. Illinois: The Free Press. Gambar disajikan oleh Levri Ardiansyah (2017)

Pada ilmu yang terkembangkan berdasarkan pengalaman empirik (*empirical science*), sebenarnya tidak berkenaan dengan '*What he should do*' melainkan '*What he can do*' dan bahkan pada keadaan tertentu lebih realistis menjadi '*What he wishes to do*' (Weber, Max, 1949: 54).

Uraian Alasan (*Inference*) pada Konsep Merupakan Silogisme

Ada juga proses logika lainnya yakni *reasoning* atau *inference.* Merunut tulisan Joyce, George Hayward (1916:3) pada bukunya berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co) tercetak '*There is a third process of the mind, namely Reasoning or Inference. This is defined as, the act by which from two given judgments, the mind passes to a third judgment distinct from these, but implicitly contained in them'*. Kutipannya tergambar seperti ini:

4 PRINCIPLES OF LOGIC

Therefore : *This flower will wither in the autumn ;*
or if I argue :—
Whatever displays the harmonious ordering of many parts is due to an intelligent cause ;
The world displays the harmonious ordering of many parts ;
Therefore : *The world is due to an intelligent cause ;*
I am said in each case to **infer** the third judgment. An inference of the form which we have employed in these examples, is called a **syllogism.** The two judgments given are known as the **premisses.** The judgment derived from them is the **conclusion.**

It is of these three acts of the mind that Logic treats : and the science falls correspondingly into three main divisions,—the Logic (1) of the Concept, (2) of the Judgment, (3) of Inference.

Sumber: Joyce, George Hayward. 1916:4. Principles of Logic. Second Edition. London: Longman, Green and Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Langkah-langkah merumuskan konsep '*the origins of administration*' berdasarkan *reasoning* atau *inference* terdiri dari:

1. Berniat merumuskan konsep '*the origins of administration*' yang terdiri dari (1) subjek dan (2) atribut.
2. Konsep '*the origins of administration*' ini harus merepresentasikan kenyataan
3. Mencari landasan keilmuan berupa pendekatan ilmiah, metode maupun teknik penelitian yang terdapat padanya penjelasan tentang '*the origins of administration*'
4. Terdapat pendekatan sejarah, pendekatan geologis, pendekatan administrasi dan pendekatan Sosiologi yang dapat digunakan untuk menjelaskan '*the origins of administration*'
5. Menginterpretasi konsep '*the origins of administration*' berdasarkan pendekatan sejarah, pendekatan geografis, pendekatan administrasi dan pendekatan Sosiologi
6. Merumuskan konsep '*the origins of administration*' berdasarkan interpretasi sosiologis.

Definisi dan Divisi *Logic*

Manakala *knowledge* yang diperlukan belum ada, tentu saja harus merumuskan sendiri konsep dan membatasi pengertian dengan merumuskan definisi berdasarkan penelitian ilmiah dengan menggunakan metode induksi dan juga analogi. Saya memahami *logic* sebagai proses emosi untuk memperoleh kebenaran berupa *thought* maupun *language as the verbal expression of thought.* Pada buku karya Joyce, George Hayward (1916:1 &2) berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co) tercetak pengertian *logic* sebagai *the science* tentang beroperasinya *mind* dalam memperoleh kebenaran. Jika definisi ini saya terima, maka *logic* tak ubahnya merupakan Psikologi. Oleh karena ini saya tidak menggunakan definisi *logic* sebagai *science,* melainkan *logic* sebagai proses emosi yang berlangsung pada otak dengan tujuan untuk memperoleh kebenaran. Kutipan tulisan Joyce, George Hayward (1916:1 &2) saya tampilkan pada gambar ini:

CHAPTER I.

THE NATURE AND AIM OF LOGIC.

§ 1. **Definition of Logic.** Logic may be defined as *the science which directs the operations of the mind in the attainment of truth.*

Another definition may be given of Logic, in which the science is considered in a different aspect. Logic is *the science which treats of the conceptual representation of the real order*; in other words, which has for its subject-matter things as they are represented in our thought. The difference between this definition and that which we gave in the first instance, is that this definition expresses the subject-matter of Logic, the former its aim. We shall find as we proceed that the science can scarcely be understood, unless both these aspects are kept in view.

Sumber: Joyce, George Hayward. 1916:1 & 2. Principles of Logic. Second Edition. London: Longman, Green and Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Tindakan yang terjadi pada proses emosi berupa menerima sesuatu kebenaran (*truth*) atau menolak sesuatu lainnya (*erroneous*) merupakan bagian *logic* yang sederhana terkenal sebagai *judgment.* Pada kalimat yang populer, *judgment* ini dipandang sebagai pernyataan menerima maupun menolak kebenaran tentang sesuatu. Kebenaran yang diterima maupun kebenaran yang ditolak ini dinamai sebagai *attribute,* sedangkan sesuatu yang dicari kebenarannya dinamakan sebagai *subject.* Contohnya kebenaran tentang fakta Batu Levria MAR (0110) merupakan figur Bumi. Pada contoh ini, fakta batu merupakan *subject.* Kebenaran yang diyakini bahwa figur Batu Levria MAR (0110) merupakan figur Bumi, merupakan *attribute* dan tindakan merumuskan konsep serta menyatakan konsep tentang figur Batu Levria MAR (0110) merupakan figur Bumi

berdasarkan *laws of association*, merupakan *judgment,* karena konsep ini menolak anggapan bahwa figur batu bukan merupakan figur Bumi. Pada contoh fakta Batu Levria MAR (0110) sebagai *subject,* pernyataan 'Fakta adanya figur Batu Levria MAR (0110) merupakan figur Bumi tidak dapat diketahui jika *fractal* pada postur Batu Levria MAR (0110) juga belum diketahui' merupakan *simple apprehension.* Pada buku karya Joyce, George Hayward (1916:3) berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co) tercetak:

§ 2. **Divisions of Logic.** The simplest act of the mind in which it can attain truth is the **judgment**—the act by which the mind affirms or denies something of something else. That which is affirmed (or denied) of the other is called an **attribute:** that to which it is said to belong (or not to belong) is called a **subject.** Hence we may define a judgment as **the act by which the mind affirms or denies an attribute of a subject.**

A judgment however gives the mind a complex object: for it involves these two parts—subject and attribute. We must therefore take account of a more elementary act of the mind than judgment, viz.: **Simple Apprehension.** Simple apprehension is the act by which the mind without judging, forms a concept of something.

Sumber: Joyce, George Hayward. 1916:3. Principles of Logic. Second Edition. London: Longman, Green and Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Memang, *logic* amat terkait dengan kebenaran (*truth*) yang diperoleh melalui *judgment.* Pertanyaannya disini, 'Apakah yang dimaksud dengan *truth?*'. Merunut pemikiran Joyce, George Hayward (1916:1), *truth* merupakan terkorespondensinya pemikiran terhadap benda yang terdapat pada realitas (*thought corresponds with the thing*). Joyce mencontohkan saat dia melihat seekor kuda putih, lalu menyatakan (*judge*), '*That horse is white*' merupakan *judgment* yang benar, karena proses berpikir tentang kuda yang dilihatnya, sesuai (*correspond*) dengan kenyataan adanya seekor kuda putih. Pada contoh kuda putih, Joyce harus merumuskan 2 konsep untuk sampai pada *judgment,* yakni (1) konsep tentang *horse* dan (2) konsep tentang *whiteness* dalam rangka menyatakan *judgment* berupa kalimat '*The horse is white*'. Melalui contohnya ini, Joyce tampak ingin menegaskan bahwa '*Logic therefore must deal with the concept*', dan satu lagi adalah *inference* atau *reasoning.*

We can at least analyse the judgment into simple apprehensions : for every judgment requires two concepts, one in which the mind expresses the subject, and the other in which it expresses the attribute. Thus in the example given above, I must have a concept of *horse*, and one of *whiteness*, in order to say 'The horse is white.' These are the elements which go to constitute the complex act of judgment, and they can be considered in isolation from it. Logic therefore must deal with the concept.

There is a third process of the mind, namely **Reasoning** or **Inference.** This is defined as, **the act by which from two given judgments, the mind passes to a third judgment distinct from these, but implicitly contained in them.** Thus if I say :—

All roses wither in the autumn ;
This flower is a rose ;

Sumber: Joyce, George Hayward. 1916:3. Principles of Logic. Second Edition. London: Longman, Green and Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Pertanyaan introspektif yang saya pikirkan adalah apakah saya meneliti untuk membuktikan kebenaran menyeluruh hingga fakta ilmiah akan terjustifikasi sebagai *the truth* ataukah membatasi penelitian untuk menunjukan adanya beberapa kebenaran parsial agar menarik perhatian peneliti ahli lainnya? Bila sikap filosofis kedua yang saya pilih, maka terpenting bagi saya haruslah meyakinkan bahwa (1) luaran riset merepresentasikan keadaan alam yang sesungguhnya sebagai fakta ilmiah; dan (2) luaran riset terhasilkan berdasar pada metodologi yang tepat. Pada buku karya Boyd, T. A. (1935: 266) berjudul '*Research the Pathfinder of Science and Industry'* (New York and London: D. Appleton-Century Company) tercetak '*The problem of the research worker is not to make sure that nature will tell the truth'.* Salinan kutipan saya sajikan berupa gambar ini:

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"There is one thing I feel strongly in respect to investigation in physical or chemical laboratories—it leaves no room for shady, doubtful distinction between truth, half-truth, whole falsehood."

The problem of the research worker is not to make sure that nature will tell the truth; but it is, first, to devise such means as are necessary to wring definite and explicit answers from her, and, second, to know whether his experimental conditions are such that the result obtained really represents nature's reply. Once nature's response has definitely been received, the truthfulness of it can be depended upon. If an explorer who has set out to question nature returns with an incorrect answer, it is either because he did not understand nature's response, or because the technique of his inquiry was so faulty that the answer he received was only static, and not a message from nature at all.

But, although if properly questioned nature can always be depended upon to tell the truth, there is such a thing as getting her to tell the truth without telling the *whole* truth. For many years nature told every experimenter that pure soft iron was a more magnetic substance than iron alloyed with other magnetic metals, such as nickel for instance. And so it happened that pure Swedish or Norway iron has always been one of the standard materials for making telephone, telegraph, and other electrical apparatus.

Sumber: Boyd, T. A. 1935: 266. Research the Pathfinder of Science and Industry. New York and London: D. Appleton - Century Company. Gambar disajikan Levri Ardiansyah (Agustus 2018).

2

Why Administration is Not Yet a Science?

Failure to Answer the Question of Fact

Sejak dulu kala hingga kini Ilmu Administrasi tidak diakui sebagai Ilmu Administrasi. Kala itu, para dosen dan peneliti administrasi maupun para ilmuwan lainnya yang memiliki keyakinan tentang adanya Ilmu Administrasi telah berupaya dengan gigih untuk membuktikan bahwa administrasi adalah ilmu tersendiri yaitu Ilmu Administrasi yang memiliki fakta ilmiah, dapat diteliti secara ilmiah, dan dapat dibuktikan kebenaran ilmiahnya. Jika kita telusuri akar permasalahan Ilmu Administrasi pada masa Yunani Kuno, terbaca bahwa memang para filsuf terdahulu tidak ada yang mendefinisikan administrasi secara jelas. Tidak kita temukan tulisan filsuf tentang *administration is.* Meski banyak menulis tentang *minister* dan *administer,* Aristotle sendiri tidak memberi definisi administrasi. Aristotle hanya menunjukan bahwa administrasi merupakan *political prudence.* Aristotle memang menunjukan perbedaan antara administrasi dengan politik dalam konteks *prudence,* namun Aristotle tidak menjelaskan apa subjek dan konsep yang secara jelas membedakan administrasi dengan politik, ekonomi, hukum dan individu.

Sesungguhnya, permasalahan yang dihadapi Ilmu Administrasi untuk membuktikan dirinya adalah ilmu, bukanlah permasalahan yang hanya dialami Ilmu Administrasi. *Science* yang dibangun berdasarkan *exact observation and experiment,* justru berkembang melalui transisi dari mistik (*vague mystical*) dan interpretasi metafisika hingga menemukan fakta lalu merumuskan dalil hukum (*to discover facts and formulate laws*). Astronomi berkembang dari astrologi, geologi dari *cosmogony,* Ilmu Kimia (*Alchemy*) dari *alchemy* dan bahkan *medicine* berkembang melalui transisi dari *magic.* Memasuki Abad ke-20, administrasi menjadi tata usaha pemerintahan, tata usaha keuangan dan tata usaha peradilan. Para ilmuwan yang kala itu tidak setuju, gencar mengumandangkan administrasi sebagai administrasi negara, sehingga administrasi menjadi tidak berbeda dengan Ilmu Politik. Dampaknya terhadap Ilmu Administrasi amat kritis: Ilmu Administrasi semakin tidak mampu membuktikan dirinya sebagai ilmu yang berdasarkan pada fakta tersendiri dengan konsep-konsep keilmuan yang berbeda dengan ilmu-ilmu lainnya. Kekhawatiran inilah yang menggugah sebagian ilmuwan yang peduli terhadap eksistensi Ilmu Administrasi berupaya keras membuktikan bahwa Ilmu Administrasi adalah Ilmu Administrasi. Namun tetap kesulitan menjawab

pertanyaan '*what is the fact of administration?*'. Hingga temuan Taylor (1919) tentang '*The Principle of Scientific Management*' dianggap sebagai angin segar yang membuka kesempatan untuk menunjukan bahwa administrasi juga *scientific* karena manajemen telah ditunjukan Taylor sebagai *scientific management.* Di era ini, para ilmuwan administrasi gencar mempublikasikan istilah administrasi sama dengan manajemen, termasuk menterjemahkan tulisan Fayol (1909) yang semula berjudul '*Administration Industrielle et Generale*' menjadi '*General and Industrial Management'*.

Kegagalan POSDCORB sebagai Matter of Fact of Administration

Profesor Luther Gulick dengan tulisannya berupa *essay* berjudul 'Notes on the Theory of Organization' yang dimuat dalam kumpulan *essay* berjudul '*Papers on the Science of Administration*' mengajukan singkatan POSDCORB untuk menunjukan bahwa administrasi adalah ilmu yang berdasarkan fakta. Gulick membuat singkatan POSDCORB sebagai jawaban atas pertanyaan '*What is the work of the chief of executive?*' yang beliau akui mengadopsi hasil analisis fungsional yang dikemukakan Henry Fayol pada bukunya berjudul '*Industrial and General Administration*'.

I

NOTES ON THE THEORY OF ORGANIZATION

WITH SPECIAL REFERENCE TO
GOVERNMENT IN THE UNITED STATES

By
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A MEMORANDUM PREPARED AS A MEMBER OF THE
PRESIDENT'S COMMITTEE ON ADMINISTRATIVE MANAGEMENT
DECEMBER, 1936

Revised June, 1937

THE THEORY OF ORGANIZATION

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is a subdivision of the executive himself. In just this way, though on a different plane, other phases of the job of the chief executive may be organized.

Before doing this, however, it is necessary to have a clear picture of the job itself. This brings us directly to the question, "What is the work of the chief executive? What does he do?"

The answer is POSDCORB.

POSDCORB is, of course, a made-up word designed to call attention to the various functional elements of the work of a chief executive because "administration" and "management" have lost all specific content.[11] POSDCORB is made up of the initials and stands for the following activities:

Planning, that is working out in broad outline the things that need to be done and the methods for doing them to accomplish the purpose set for the enterprise;
Organizing, that is the establishment of the formal structure of authority through which work subdivisions are arranged, defined and co-ordinated for the defined objective;
Staffing, that is the whole personnel function of bringing in and training the staff and maintaining favorable conditions of work;
Directing, that is the continuous task of making decisions and embodying them in specific and general orders and instructions and serving as the leader of the enterprise;
Co-ordinating, that is the all important duty of interrelating the various parts of the work;
Reporting, that is keeping those to whom the executive is responsible informed as to what is going on, which thus includes keeping himself and his subordinates informed through records, research and inspection;
Budgeting, with all that goes with budgeting in the form of fiscal planning, accounting and control.

This statement of the work of a chief executive is adapted from the functional analysis elaborated by Henri Fayol in his "Industrial and General Administration." It is believed that those who know administration intimately will find in this analysis a valid and helpful pattern, into which can be fitted each of the major activities and duties of any chief executive.

Sumber: Gulick, Luther & Urwick, L. 1937:13. Papers on The Science of Administration. New York: Columbia University, Institute of Public Administration. Gambar dibuat oleh Levri Ardiansyah (2016).

Merunut tulisan Profesor Dwight Waldo (1955:46), Gulick mengadopsi istilah *planning* yang merupakan konsep utama dalam *scientific management,* sehingga dengan mempublikasikan istilah *planning* sebagai prinsip administrasi, diharapkan dapat membuktikan bahwa administrasi memiliki konsep yang menunjukan fakta, yaitu berupa *work flow* pada *planning of work flow,* termasuk juga *production layouts.* Oleh karena ini, merunut tulisan Waldo *planning* menjadi suatu kateogri dalam studi tentang administrasi publik melalui jalur *Scientific Management.*

That *planning* stands first is probably an accident of phonetics, but it occupied a very prominent place indeed in administrative thinking and writing in the mid-thirties. Planning was a very prominent concept in the Scientific Management movement: planning of work flow, production lay-outs, and so forth. Thus planning would in any case have become a category in the study of public administration by the Scientific Management route, but the Great Depression was responsible for a larger impact on public administration than would otherwise have come about. For in reaction to laissez-faire economic policies, which were thought by many to have brought on or worsened the effects of the depression, planning became highly popular—in fact, in many circles, a fad, even a *mystique.*

Sumber: Waldo, Dwight. 1955:46. The Study of Public Administration. Garden City, New York: Doubleday and Company Inc. Gambar dibuat oleh Levri Ardiansyah (2016).

Istilah *organizing* yang dikemukakan Gulick berasal dari teori yang terdapat dalam Ilmu Ekonomi yaitu *organization-chart theory,* sehingga dengan dasar ini *organizing* dalam administrasi menjadi konsep yang telah dibuktikan kebenarannya ilmiahnya oleh Ilmu Ekonomi. Merunut tulisan Waldo, *organizing* yang dikemukakan Gulick memang *'might be called organization-chart theory'* yang merupakan teori yang menekankan pada dasar logis, rasional dan relasi antara manusia dengan fungsi yang telah terumuskan dengan baik.

Organizing has undergone changes of similar scope. Professor Gulick's essay in the *papers* presents perhaps the finest summary statement of the organization theory of the thirties. It develops the themes of division of labor and specialization of function, of the need for and means of coordination, the functions of the executive, the differences between line and staff activities, and the advantages and disadvantages of emphasizing (1) purpose, (2) process, (3) people or things, and (4) place in constructing or modifying an organization. This essay also touches upon some of the matters which were to be subjects of much attention at a later date, such as the role of ideas in organization. Nevertheless, the essay presents essentially what might be called organization-chart theory, theory which is characterized by strong emphases upon logical, rational, prescribed relations between persons or functions.

Sumber: Waldo, Dwight. 1955:46. The Study of Public Administration. Garden City, New York: Doubleday and Company Inc. Gambar dibuat oleh Levri Ardiansyah (2016).

Dengan menekankan POSDCORB sebagai *the work of the chief of executive,* Profesor Gulick tegas menyatakan bahwa fakta adanya Ilmu Administrasi adalah pekerjaan seorang Presiden sebagai *Chief of Executive.* Pada *essay* yang beliau tulis berjudul 'Notes on the Theory of Organization' yang dimuat dalam kumpulan *essay* berjudul '*Papers on the Science of Administration*', tulisan Gulick (1937:14) dapat kita baca '*In view of the fact that the job of the President as Chief Executive is POSDCORB*' dengan kutipan lengkapnya saya gambarkan seperti ini:

Each of these agencies is as a matter of fact now serving as a managerial arm of the chief executive, particularly budgeting and planning. It will be observed that directing, co-ordinating and organizing are not institutionalized, but remain undifferentiated and unimplemented in the hands of the President. In view of the fact that he is swamped now, it would seem desirable to take out the organizing function, turning that over to the efficiency research division of the Budget Bureau, and then to increase the immediate personal staff of the White House with five or six high grade personal assistants to the President, along the line planned for the City of New York, to make it possible for him to deal adequately with the directing and co-ordinating functions.[12] What is most needed is a group of able and informed men who will see that the President has before him all relevant facts and that all appropriate clearance is secured before decisions are made and that a decision once made is known to those who are involved.

In view of the fact that the job of the President as Chief Executive is POSDCORB,

Sumber: Gulick, Luther & Urwick, L. 1937:14. Papers on The Science of Administration. New York: Columbia University, Institute of Public Administration. Gambar dibuat oleh Levri Ardiansyah (2016).

POSDCORB yang diimplementasikan ke dalam organisasi pemerintah, dipandang Gulick sebagai '*a matter of fact'* yang berada ditangan seorang manusia yaitu Presiden (*in the hands of the President*). Melalui pandangan dan tulisannya ini, Gulick terlihat gigih untuk menunjukan bahwa Ilmu Administrasi memiliki fakta ilmiah berupa manusia (*human body*) yang dikaji oleh Ilmu Administrasi tentang pekerjaannya (*work*) sebagai *chief of executive* dengan implementasi POSDCORB sebagai *matter of fact.* Gulick tentu belajar dari pengalaman Sosiologi yang berhasil menyatakan dirinya sebagai ilmu dengan bukti fakta ilmiah berupa *organism* (Collins (1889:xvii), '*An Epitome of the Synthetic Philosophy*') dan Psikologi yang juga berhasil membuktikan dirinya sebagai ilmu dengan fakta ilmiah berupa *human mind* yaitu *the substance of mind* (Collins (1889:200), '*An Epitome of the Synthetic Philosophy*'). Ilmu-ilmu eksakta lainnya semisal Ilmu Fisika dan Ilmu Kimia tentu saja dengan mudah menunjukan dirinya adalah ilmu karena keduanya tidak hanya memiliki *fact* yang jelas tetapi juga *matter of fact* berupa elemen-elemen fakta. Bagi Ilmu Kimia, air adalah fakta kimia dengan elemennya yang tersusun dari 2 atom hidrogen yang terikat secara kovalen pada satu atom oksigen. Bagi Ilmu Fisika, air adalah juga fakta fisik dengan elemennya berupa suhu, kekeruhan, warna, bau dan rasa.

Kegigihan Gulick tak berbuah hasil, administrasi tetap tidak diakui sebagai ilmu karena fakta yang diajukan Gulick dinilai tidak jelas. Manusia sebagai *an organic matter* telah menjadi fakta ilmiah adanya Biologi (Collins, 1889:67, '*An Epitome of the Synthetic Philosophy*') dan POSDCORB sebagai *matter of fact* juga dinilai tidak memiliki fakta berupa benda nyata yang jelas bentuk rupanya. Mana benda fisik yang merupakan *planning?* adalah salah satu contoh pertanyaan yang tak terjawab. Begitu juga dengan *organizing, staffing, directing, coordinating, reporting* dan *budgetting,* mana benda fisiknya?

Kegagalan 'The Principle of Scientific Management' sebagai Matter of Fact of Administration

Para dosen administrasi dan tokoh-tokoh lainnya pernah juga mengajukan hasil penelitian Frederick Winslow Taylor, sebagai bukti ilmiah adanya Ilmu Administrasi. Sebagai seorang insinyur teknik mesin, Taylor telah melakukan eksperimen interaksi antara manusia dengan mesin sehingga seorang pekerja dapat bekerjasama dengan mesin secara efektif melalui konsep yang beliau rumuskan sebagai '*The Principle of Scientific Management*'. Merunut tulisan Waldo (1955:37), Taylor telah menunjukan '*how to use tools or machinery or to cooperate effectively on a particular type of operation*'. Bagi para dosen administrasi kala itu, eksperimen yang dilakukan Taylor telah membuktikan bahwa tindakan manusia yang bekerjasama dapat dihitung secara kuantitatif dengan menggunakan *'scientific method'* sehingga penelitian Taylor ini dipandang mendukung upaya ilmiah untuk membuktikan administrasi sebagai ilmu, sehingga para dosen administrasi turut mengakui Taylor sebagai '*The Father of Scientific Management*'. BagiTaylor sendiri tidak mudah meyakinkan dunia bahwa sesungguhnya manusia dapat berinteraksi bahkan bekerjasama dengan mesin dan peristiwa kerjasama ini dapat dihitung secara ilmiah. Oleh karena ini, Taylor merasa perlu melakukan suatu revolusi untuk menyadarkan pikiran manusia dengan melakukan suatu '*Mental Revolution*' sehingga kala itu Taylor memaknai '*The Principle of Scientific Management*' sebagai '*Mental Revolution*' bukan sebagai '*Machine Revolution*'.

Gottfried Wilhem Leibniz (1646 – 1716), seorang filsuf, ilmuwan dan ahli matematika bahkan pernah melakukan penelitian ilmiah tentang administrasi kesehatan publik hingga menghasilkan konsep tentang kebijakan pemberian kewenangan administratif pada bidang medis dan merancang program pelatihan bagi para tenaga medis. Meski tidak memiliki latar belakang Ilmu Sosial, apalagi Ilmu Administrasi, Leibniz telah dapat meyakinkan para ilmuwan bahwa '*social*' adalah '*the structure of the world*' dan sebagai struktur, sosial merupakan fakta yang dapat dihitung secara kuantitatif. Dalam bidang Matematika, Leibniz adalah penemu *calculus* dan *the binary system* yang menjadi dasar perancangan komputer modern. Kepada Psikologi, kontribusi pemikiran Leibniz yang diakui adalah bahwa *consciousness* merupakan *character of substance* (*the soul*) yang juga merupakan *unitary energy or activity.* Konsep ini menjadi petunjuk awal ilmiah bahwa kesadaran adalah aktivitas dan karenanya kesadaran adalah fakta. Bagi Psikologi, Leibniz dijuluki sebagai '*The Father of Modern Psychology*'. Leibniz juga berhasil membuktikan konsep ini secara ilmiah hingga menjadi *Theory of the One Activity or Energy* (Hughes, 1952:105). Leibniz adalah salah satu contoh ilmuwan diluar Ilmu Administrasi yang pernah memberikan sumbangan pemikiran tentang administrasi.

Permasalahan yang dihadapi Ilmu Administrasi di era kontemporer tetap sama yaitu tidak dapat menjawab pertanyaan keilmuan '*what is*'. Di era kontemporer, kajian tentang administrasi lebih banyak berupa paradigma dan perspektif yang mengadopsi berbagai disiplin Ilmu Sosial lalu mengkombinasikannya dan dikemas dalam istilah *public administration* dan *public service* dengan beragam variannya, baik itu *new public management, new public service* maupun *public policy*. Tidak lagi terdengar gelegar kajian tentang apa yang menjadi fakta Ilmu Administrasi, apa *general conception*-nya dan apa yang menjadi *great subject* sesungguhnya dari Ilmu Administrasi. Ilmu administrasi adalah ilmu tertua yang dipraktikan manusia sebagai seni bekerjasama karena kemanfaatan yang diinginkan tidak dapat terwujud tanpa administrasi. Nama '*Science of Administration'* baru hadir pada abad ke-20, namun substansi keilmuannya masih diperdebatkan sebagai ilmu yang berdasarkan fakta valid dan teruji.

Administrasi sebagai Bagian dari Rumpun Ilmu Terapan

Realitas objektif masa kini, Ilmu Administrasi justru tidak diakui oleh dunia internasional maupun nasional sebagai disiplin ilmu tersendiri, juga tidak diakui sebagai bagian dari rumpun ilmu tertentu, bahkan nama '*Science of Administration'* hanya diakui sebagai nama judul buku '*Papers on Science of Administration*'. Pada tahun 2012 lalu, UNESCO menetapkan *International Standard Classificatiion of Education* (ISCED 2011) yang tidak mencantumkan Ilmu Administrasi rumpun ilmu tersendiri sebagai *Science of Administration*. UNESCO hanya menempatkan *public administration* pada rumpun *Business and Administration,* termasuk pada rumpun ini adalah *institutional administration* dan *personnel administration.* Realitas objektif ini menunjukan bahwa administrasi kontemporer pada tataran internasional adalah Ilmu Administrasi Bisnis dengan Ilmu Administrasi Publik sebagai bagian dari Ilmu Administrasi Bisnis.

3 Social sciences, business and law

31 Social and behavioural science

Economics, economic history, political science, sociology, demography, anthropology (except physical anthropology), ethnology, futurology, psychology, geography (except physical geography), peace and conflict studies, human rights.

32 Journalism and information

Journalism; library technician and science; technicians in museums and similar repositories;

Documentation techniques;

Archival sciences.

34 Business and administration

Retailing, marketing, sales, public relations, real estate;

Finance, banking, insurance, investment analysis;

Accounting, auditing, bookkeeping;

Management, public administration, institutional administration, personnel administration;

Secretarial and office work.

38 Law

Local magistrates, '*notaires*', law (general, international, labour, maritime, etc.), jurisprudence, history of law.

4 Science

42 Life sciences

Biology, botany, bacteriology, toxicology, microbiology, zoology, entomology, ornithology, genetics, biochemistry, biophysics, other allied sciences, excluding clinical and veterinary sciences.

44 Physical sciences

Astronomy and space sciences, physics, other allied subjects, chemistry, other allied subjects, geology, geophysics, mineralogy, physical anthropology, physical geography and other geosciences, meteorology and other atmospheric sciences including climatic research, marine science, vulcanology, palaeoecology.

46 Mathematics and statistics

Mathematics, operations research, numerical analysis, actuarial science, statistics and other allied fields.

48 Computing

Computer sciences: system design, computer programming, data processing, networks, operating systems – software development only (hardware development should be classified with the engineering fields).

5 Engineering, manufacturing and construction

52 Engineering and engineering trades

Engineering drawing, mechanics, metal work, electricity, electronics, telecommunications, energy and chemical engineering, vehicle maintenance, surveying.

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Sumber: UNESCO-UIS. 2012. International Standard Classification of Education (ISCED) 2011. Canada: UNESCO Institute for Statistics.
Gambar dibuat oleh Levri Ardiansyah (2016).

Ketetapan UNESCO ini mempengaruhi realitas objektif administrasi di Indonesia. Pada tataran nasional, nama Ilmu Administrasi tidak tercantum pada UU Nomor 12 Tahun 2012 tentang Pendidikan Tinggi. Pada Paragraf 2 tentang Rumpun Ilmu Pengetahuan dan Teknologi khususnya Pasal 10 Ayat (2) dapat kita baca bahwa rumpun ilmu pengetahuan dan teknologi terdiri atas: (a) rumpun ilmu agama; (b) rumpun ilmu humaniora; (c) rumpun ilmu sosial; (d) rumpun ilmu alam; (e) rumpun ilmu formal dan (f) rumpun ilmu terapan. Berdasarkan undang-undang ini, nama 'Ilmu Administrasi' tidak tercantum sebagai nama pada salah satu rumpun ilmu pengetahuan dan teknologi, artinya UU Nomor 12

Tahun 2012 tidak mengakui ada rumpun Ilmu Administrasi. Pada Penjelasan atas UU Nomor 12 Tahun 2012 tentang Pendidikan Tinggi Pasal 10 Ayat (2) Huruf c juga tidak tercantum nama Ilmu Administrasi sebagai bagian dari rumpun Ilmu Sosial. Kutipan Penjelasan Pasal 10 Ayat (2) Huruf c adalah seperti ini:

> Rumpun Ilmu Sosial merupakan rumpun Ilmu Pengetahuan yang mengkaji dan mendalami hubungan antar manusia dan berbagai fenomena Masyarakat, antara lain Sosiologi, Psikologi, Antropologi, Ilmu Politik, Arkeologi, Ilmu Wilayah, Ilmu Budaya, Ilmu Ekonomi, dan Geografi.

PRESIDEN
REPUBLIK INDONESIA

UNDANG-UNDANG REPUBLIK INDONESIA
NOMOR 12 TAHUN 2012
TENTANG
PENDIDIKAN TINGGI

DENGAN RAHMAT TUHAN YANG MAHA ESA
PRESIDEN REPUBLIK INDONESIA,

Paragraf 2
Rumpun Ilmu Pengetahuan dan Teknologi

Pasal 10

(1) Rumpun Ilmu Pengetahuan dan Teknologi merupakan kumpulan sejumlah pohon, cabang, dan ranting Ilmu Pengetahuan yang disusun secara sistematis.
(2) Rumpun Ilmu Pengetahuan dan Teknologi sebagaimana dimaksud pada ayat (1) terdiri atas:
a. rumpun ilmu agama;
b. rumpun ilmu humaniora;
c. rumpun ilmu sosial;
d. rumpun ilmu alam;
e. rumpun ilmu formal; dan
f. rumpun ilmu terapan.
(3) Rumpun Ilmu Pengetahuan dan Teknologi sebagaimana dimaksud pada ayat (2) ditransformasikan, dikembangkan, dan/atau disebarluaskan oleh Sivitas Akademika melalui Tridharma.

Paragraf 3 . . .

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PENJELASAN
ATAS
UNDANG-UNDANG REPUBLIK INDONESIA
NOMOR 12 TAHUN 2012
TENTANG
PENDIDIKAN TINGGI

Pasal 10
Ayat (1)
Cukup jelas.
Ayat (2)
Huruf a

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Huruf b
Rumpun ilmu Humaniora merupakan rumpun Ilmu Pengetahuan yang mengkaji dan mendalami nilai kemanusiaan dan pemikiran manusia, antara lain filsafat, ilmu sejarah, ilmu bahasa, ilmu sastra, ilmu seni panggung, dan ilmu seni rupa.
Huruf c
Rumpun ilmu sosial merupakan rumpun Ilmu Pengetahuan yang mengkaji dan mendalami hubungan antar manusia dan berbagai fenomena Masyarakat, antara lain sosiologi, psikologi, antropologi, ilmu politik, arkeologi, ilmu wilayah, ilmu budaya, ilmu ekonomi, dan geografi.
Huruf d
Huruf e
Huruf f
Rumpun ilmu terapan merupakan rumpun Ilmu Pengetahuan dan Teknologi yang mengkaji dan mendalami aplikasi ilmu bagi kehidupan manusia antara lain pertanian, arsitektur dan perencanaan, bisnis, pendidikan, teknik, kehutanan dan lingkungan, keluarga dan konsumen, kesehatan, olahraga, jurnalistik, media massa dan komunikasi, hukum perpustakaan dan permuseuman, militer, administrasi publik, pekerja sosial, dan transportasi.

Sumber: Kementerian Sekretariat Negara RI. 2012. Undang-Undang Nomor 12 Tahun 2013 tentang Pendidikan Tinggi. Gambar dibuat oleh Levri Ardiansyah (2016).

UU Nomor 12 Tahun 2012 hanya mengakui adanya administrasi publik yang ditetapkan sebagai bagian dari rumpun Ilmu Terapan. Kebijakan ini tertera pada Penjelasan Pasal 10 Ayat (2) Huruf f seperti ini:

> Rumpun ilmu terapan merupakan rumpun Ilmu Pengetahuan dan Teknologi yang mengkaji dan mendalami aplikasi ilmu bagi kehidupan manusia antara lain pertanian, arsitektur dan perencanaan, bisnis, pendidikan, teknik, kehutanan dan lingkungan, keluarga dan konsumen, kesehatan, olahraga, jurnalistik, media massa dan komunikasi, hukum, perpustakaan dan permuseuman, militer, administrasi publik, pekerja sosial, dan transportasi.

Tampaknya kebijakan ini dipengaruhi oleh ketetapan UNESCO yang menempatkan administrasi pada rumpun Ilmu Administrasi Bisnis, sehingga administrasi dipandang sebagai administrasi publik yang layak ditempatkan sebagai *practical science* sebagaimana layaknya bisnis yang merupakan *practical science.* Realitas objektif ini adalah bukti bahwa *science* telah menjadi institusi paling prestisius yang mempengaruhi kebijakan organisasi negara dan kebijakan organisasi internasional sekelas *United Nations.* Tidak ada institusi lain yang seprestisius *science* dalam kehidupan modern.

Begitu juga pada tataran ilmiah, nama Ilmu Administrasi kini tidak lagi digunakan pada berbagai institusi pendidikan, forum ilmiah maupun penelitian ilmiah tentang keadministrasian. Nama Administrasi Publik dan Administrasi Bisnis kini lebih sering digunakan menggantikan nama Ilmu Administrasi. Paradigma administrasi kontemporer kian jelas menekankan pada '*public*' seperti *public service* yang dikaji berdasarkan perspektif *public administration* dengan berbagai tipe pemikiran diantaranya *new public management.* Begitu juga model '*Reinventing Government*' yang memadukan administrasi bisnis pada administrasi publik dengan cara 'menyuntikan' nilai-nilai *entrepreneurship* ke dalam birokrasi pemerintah. Di Perguruan Tinggi tempat penulis mengabdi selama ini yaitu Universitas Padjadjaran, khususnya Fakultas Ilmu Sosial dan Ilmu Politik, nomenklatur yang kini digunakan adalah Program Studi Ilmu Administrasi Publik. Pada awal sejarah terbentuknya Fakultas Ilmu Sosial dan Ilmu Politik, nama program studi saat itu adalah 'Jurusan Ilmu Administrasi'.

Perjuangan ilmiah para ilmuwan terdahulu untuk meyakinkan dunia tentang adanya Ilmu Administrasi sepertinya akan menjadi kian tak berarti. Meski para ilmuwan itu berasal dari berbagai disiplin ilmu, namun dengan keyakinan ilmiahnya tentang eksistensi Ilmu Administrasi, mereka melakukan penelitian ilmiah, menghasilkan konsep monumental bahkan menemukan teknologi untuk membuktikan kebenaran teori administrasi dan kebenaran ilmiah adanya Ilmu Administrasi.

Permasalahan yang dihadapi Ilmu Administrasi di era kontemporer tetap sama yaitu tidak dapat menjawab pertanyaan keilmuan '*what is*'. Di era kontemporer, kajian tentang administrasi lebih banyak berupa paradigma dan perspektif yang mengadopsi berbagai disiplin Ilmu Sosial lalu mengkombinasikannya dan dikemas dalam istilah *public administration* dan *public service* dengan beragam variannya, baik itu *new public management, new public service* maupun *public policy*. Tidak lagi terdengar gelegar kajian tentang apa yang menjadi fakta Ilmu Administrasi, apa *general conception*-nya dan apa yang menjadi *great subject* sesungguhnya dari Ilmu Administrasi.

Administration Today Has No Theory

Sebelum saya melakukan penelusuran *the origins of administration,* terlebih dahulu saya melakukan introspeksi administrasi hingga saya menemukan kenyataan introspektif yakni Ilmu Administrasi tidak memiliki teori administrasi yakni teori tersendiri yang terbangun berdasarkan penelitian ilmiah tentang administrasi dan telah teruji oleh berbagai disiplin ilmu. Dengan mengandaikan teori sebagai milik suatu ilmu, dapat saya uraikan seperti ini: Teori Birokrasi adalah milik Ilmu Ekonomi, berbagai Teori Manajemen tentu saja milik Ilmu Ekonomi, Teori Organisasi adalah juga milik Ilmu Ekonomi, dan Teori Keuangan yang kerap terbaca sebagai 'Administrasi Keuangan' jelas merupakan milik Ilmu Ekonomi, Teori Pembangunan adalah milik Sosiologi, demikian juga berbagai Teori Sosial adalah milik Sosiologi, Teori Kepemimpinan adalah milik Ilmu Politik, Teori Motivasi adalah milik Psikologi, dan Teori Perilaku yang kerap dicetak sebagai Perilaku Administrasi adalah juga milik Psikologi. Kata 'milik' disini tentu harus terbaca sebagai bukan dalam pengertian kepemilikan suatu benda namun dalam pengertian bahwa teori ini terbangun berdasarkan suatu ilmu yang dilakukan melalui penelitian ilmiah untuk menghasilkan konsep yang telah teruji oleh berbagai disiplin ilmu lainnya hingga menjadi teori yang dapat diterapkan meluas hingga ke seluruh penjuru dunia. Dengan begini, saya tak dapat menjawab pertanyaan introspektif (1) Mana Teori Administrasi? (2) Apa nama teorinya? (3) Bagaimana penelitian ilmiah dilakukan hingga teori ini dapat ternyatakan sebagai teori berdasarkan Ilmu Administrasi?; (4) Siapa nama ahli Ilmu Administrasi yang membangun teori ini? dan (5) Apa konsep yang melandasi terbangunnya teori ini?

Istilah teori administrasi diantaranya dikemukakan oleh Wallace B. Donham yakni '*The Theory and Practice of Administration*' yang tercetak pada *Harvard Business Review, vol. 14 Summer 1939.* Pada buku karya Lepawsky, Albert (1949: 662 & 663) berjudul '*Administration the Art and Science of Organization and Managemen'* (Calcutta: Oxford & IBH Publishing Co) cetakan tulisan Donham terbaca seperti ini:

(b) WALLACE B DONHAM

"The Theory and Practice of Administration"[51]

In the social sciences there has been a serious gap, except where administration is involved, between the theorist and the man who must act As a result our social science theory continues to be detached from reality There is great need for a new social science, namely, the Science of Administration, where social theory and action must meet Administration as conceived in this paper is, therefore, a social science with its own

[51] Wallace B Donham "The Theory and Practice of Administration" *Harvard Business Review*, vol 14 Summer 1936 selected from p 409 Reprinted by permission

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techniques, its own abstractions clustering around the concept of action through human organizations, and its own problems of theory. It is vitally concerned in integrating other sciences, physical, biological, psychological, and social, at the point where action is involved. Its social importance is great. Indeed, if our civilization breaks down, it will be mainly a breakdown of administration, both private and public.

Sumber: Lepawsky, Albert. 1949: 662 & 663. Administration the Art and Science of Organization and Management. Calcutta: Oxford & IBH Publishing Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran tulisan Donham ini, Ilmu Administrasi memadukan teori dan praktik. Ini yang membedakan Ilmu Administrasi terhadap Ilmu-Ilmu Sosial lainnya yang terdapat jurang pemisah antara teori terhadap praktik. Dengan begini, Donham menegaskan bahwa Ilmu Administrasi merupakan Ilmu Sosial yang memiliki teknik tersendiri maupun abstraksi tersendiri berdasarkan konsep tentang tindakan melalui organisasi. Oleh karena ini, Ilmu Administrasi memiliki teori yang dapat menyelesaikan sejumlah permasalahan administrasi. Pada tulisan Donham ini, saya tidak membaca adanya teori administrasi. Teori apa? Donham hanya menyatakan '... *the Science of Administration where social theory and action meet administration ... as social science with its own techniques, its own abstractions ... and its own problems of theory*'.

Charles A. Beard, seorang *American Historian,* sekaligus pemikir administrasi memilih tetap menggunakan istilah '*Science of Administration*', meskipun dianggap tidak memenuhi kriteria *science* sebagai '*a conceptual scheme of things*' yang setiap bagiannya dapat dihitung menggunakan matematika. Argumen yang dikemukakan Beard adalah bahwa pada administrasi sesungguhnya terdapat '*things*' yang analog atau bisa jadi identik dengan sistem mekanik maupun rangkaian benda-benda fisik tertentu (... *there are in administration things analogous to, if not identical with, the mechanical tracts or deterministic sequences of physics*). Pandangan, sikap dan argumen Beard ini

disampaikan dengan tulisan berjudul *"Philosophy, Science and Art of Public Administration"* pada acara '*The Annual Conference of the Governmental Research Association', Pnnceton, New Jersey, September 8 1939.* Kutipan tulisan Beard ini terbaca pada buku karya Lepawsky, Albert (1949: 660, 661 & 662) berjudul '*Administration the Art and Science of Organization and Managemen'* (Calcutta: Oxford & IBH Publishing Co) yang tercetak:

(a) CHARLES A. BEARD

"Philosophy, Science and Art of Public Administration"[50]

The word science of administration has been used There are many who object to the term Now if by science is meant a conceptual

[45] Herbert A Simon 'A Comment on the 'Science of Public Administration'" *Public Administration Review* Winter 1947, vol 7, pp 201–03 See also Alexander Leighton *The Governing of Men* Princeton Princeton University Press, 1945, p 5

[46] See also Morris R Cohen "Scientific Method," *Encyclopedia of the Social Sciences*, 1937, vol 5, pp 389–95

[47] Stuart Chase *The Proper Study of Mankind* New York Harper & Brothers 1948

[48] "A Program for the Nation" *Science and Public Policy* Vol 1, p viii

[49] See also Wallace B Donham *Education for Responsible Living* Cambridge Harvard University Press, 1945

[50] Charles A Beard "Philosophy, Science and Art of Public Administration" Selected from an address delivered before The Annual Conference of the Governmental Research Association, Princeton, New Jersey, September 8 1939

scheme of things in which every particularity covered may be assigned a mathematical value, then administration is not a science. In this sense only astro-physics may be called a science and it is well to remember that mechanical laws of the heavens tell us nothing about the color and composition of the stars and as yet cannot account for some of the disturbances and explosions which seem accidental. If, on the other hand, we may rightly use the term science in connection with a body of exact knowledge, derived from experience and observation, and a body of rules or axioms which experience has demonstrated to be applicable in concrete practice, and to work out in practice approximately as forecast, then we may, if we please, appropriately and for convenience, speak of a science of administration. Once, when the great French mathematician, Poincare, was asked whether Euclidean geometry is true, he replied that the question had no sense but that Euclidean geometry is and still remains the most convenient. The Oxford English Dictionary tells us that a science is, among other things, a particular branch of knowledge or study; a recognized department of learning.

The administrator is more like the engineer who constructs a power plant, that is, he is concerned with the realization of conscious human purposes by the conscious use of human beings and materials. It is true that the mere student of administration may be just an observer, but he does not merely observe natural, unconscious, and automatic operations. He observes the formulation of human purposes, consciously and deliberately, and operations designed to effect given results. And he sees calculations of results in advance realized later in practice with a high degree of approximation. The degree of approximation between advance calculations and results is not often, if ever, as exact as in the case of a hydro-electric plant, but it is constantly exact enough for practical purposes.

In other words, there are in administration things analogous to, if not identical with, the mechanical tracts or deterministic sequences of physics. If, for example, it is decided by government to accomplish the purpose of providing compensation at given rates for men and women employed in industry who sustain injuries in connection with their occupations, the administrator can, like the engineer, estimate in advance the probable cost of such a design, indicate the types of officers and employees necessary to administer the design, and the administrative procedures appropriate to the whole process from beginning to end. And, as in the case of the hydro-electric engineer, the administrator, later sees the results of his operations and can compare them with his advance estimates. There are more variables and incalculables in human affairs than in hydro-electric affairs, but even so administration achieves pre-determined results with an approximation which is often amazing for its exactness. If administrative designs and estimates were not realized in practice with a high degree of exactness, both industry and government would collapse.

And if the experience of natural science is any guide, then as the

science of administration advances, we may reasonably expect it to take on an increasingly deterministic character As research, scientific societies, and the exchanges of knowledge and hypotheses by natural scientists have advanced the exactness of knowledge in the domain of natural science, so we may expect research, administrative societies, and the exchanges among administrators to advance the exactness of knowledge in the domain of administration

Already, we may truly say, we have an enormous body of exact and usable knowledge in the domain of administration It would be easy to list thousands of volumes and articles on the subject, from the hands of high competence I have seen this body of literature grow from a few items in 1898 to an enormous mass in 1939 During this period I have seen the number of research workers increase from a mere handful to hundreds This is a fact also, at least for informed and competent persons During this period the opportunities for life work in administration have multiplied many times I dare say, though I shall not try to prove it, that the body of exact literature in administration is many times larger than the body of exact literature in natural science when Bacon, Galileo, and Newton began the revolution in natural science three hundred years ago During this same period I have seen the number of societies and organizations among administrators, local and general, increase from nothing to fifty or sixty

This body of administrative literature can be taught to young men and women, perhaps also to the aged, if they are not hopeless And it is possible by tests to discover whether or how far the process of communicating and imparting administrative knowledge has been successful, [although] not precisely in all cases Moreover, and this is highly important, young men and women who have more or less mastered the principles, maxims, and axioms of administrative science can now, by what is called in training, fortify their formal knowledge by living experiences in and with administration There is, then, a science of administration, in the sense in which I have used the term, and it can be taught, learned, and used

Sumber: Lepawsky, Albert. 1949: 660, 661 & 662. Administration the Art and Science of Organization and Management. Calcutta: Oxford & IBH Publishing Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Doctrine Administrative Cannot be Translated by 'Administrative Theory'
Tulisan Fayol berjudul '*La Doctrine Administrative dans I'Etat'* yang dikirimkan untuk Kongres Internasional Ilmu Administrasi ke-2 (*Second International Congress of Administrative Sciences*) yang diselenggarakan di Brussels pada tahun 1923. Sarah Greer lalu menterjemahkan '*La Doctrine Administrative dans I'Etat'* menjadi '*The Administrative Theory in the State*' sebagai makalah untuk buku berjudul '*Papers on the Science of Administration*' yang terbit tahun 1937 di Amerika Serikat. Inilah pangkal mula hadirnya istilah '*administrative theory*' yang kemudian dikutip oleh berbagai ahli dengan berbagai judul buku, termasuk buku tentang administrasi yang terbit di Indonesia hingga berada di tangan saya saat mahasiswa. Tetapi pada sebagian besar buku tentang administrasi, tidak terdapat kalimat penjelasan singkat bahwa istilah '*Administrative Theory'* ini merupakan hasil terjemahan dari istilah '*Doctrine Administrative*'.

Fayol tentu amat paham perbedaan doktrin dengan teori. Bahkan pada bukunya berjudul '*Administration Industrielle et Generale*', Fayol jelas tidak menuliskan doktrin administrasi sebagai teori administrasi, melainkan doktrin administrasi merupakan prinsip-prinsip administrasi yang terdiri dari 5 prinsip manajemen dan 1 prinsip beroperasinya administrasi. Mengapa Sarah Greer dapat menterjemahkan *doctrine* menjadi *theory?* Mengapa pula Prof. Luther Gulick mennyetujuinya? Merunut pemikiran tulisan Fayol tentang '*Administration Industrielle et Generale*' yang terbaca pada buku karya Zottan, Magyary (1938: 23) berjudul '*The Industrial State'* (United State of America: Thomas Nelson and Sons) tercetak '*There must be some serious cause and that cause is simply that **there is no theory of administration***'. Ini yang menjadi pertimbangan Fayol menghadirkan istilah '*doctrine administrative*' sebagai pengisi jurang kekosongan tak adanya teori administrasi. *Where there is no theory, there is nothing to teach.* Kutipannya terbaca pada gambar ini:

The trouble, according to Fayol, lies in the fact that the administrative ability can, and indeed must, be acquired in the same manner as technical ability—first in school and then in practice. Nevertheless administration is not taught anywhere, not even in the colleges nor in the professional colleges. How is that possible? There must be some serious cause; and that cause is simply that there is no theory of administration. Where there is no theory, there is nothing to teach. Eminent heads have neither the time nor the ambition to write; and they usually disappear without leaving behind them either theories or even disciples. And it is really not the duty of eminent chiefs to contribute to the elaboration of an administrative theory. But Fayol considered the supplying of the deficiency so important that he attempted to fill the gap. This was how his ***Doctrine Administrative*** came into being.

Sumber: Zottan, Magyary. 1938: 23. The Industrial State. United State of America: Thomas Nelson and Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Price, George McCready. 1923: 676. *The New Geology A Textbook for Colleges, Normal Schools, and Training Schools, and for the General Reader.* California: Pacific Press Publishing Assoiation tercetak

No Historical Order of the Fossils. But the appeal to unlimited time is always accompanied by the artificial arrangement of the numerous floras and faunas found in the rocks in an alleged historical or chronological order; and it is only in this connection that the idea of practically unlimited time has been built up. There would be no serious question about the length of time involved in any *single* geological event; it is only when the countless geological events all over the world are arranged in this artificial series in an *alleged historical order*, based on the fossils in the rocks, that the appeal to time has any great significance.

Sumber: Price, George McCready. 1923: 676. The New Geology A Textbook for Colleges, Normal Schools, and Training Schools, and for the General Reader. California: Pacific Press Publishing Assoiation. Gambar disajikan oleh Levri Ardiansyah 2017).

The Administrative Theory in the State

Tulisan Henri Fayol yang terbaca pada *paper* karya Fayol, Henri (1923) berjudul '*The Administrative Theory in the State* merupakan hasil terjemahan Sarah Greer dari Bahasa *French* ke *English. Paper* ini pernah disajikan Fayol saat kongres Ilmu Administrasi di Brussels bertajuk '*The Second International Congress of Administrative Science*' yang kemudian dipublikasi oleh *Institute of Public Administration, University of Columbia* dengan seijin dari M. Henri Fayol, Junior dalam bentuk buku karya gubahan Gulick, Luther dan Urwick, L., yang terbit tahun 1937 dengan judul '*Papers on the Science of Administration'* (New York: Institute of Public Administration, Columbia University). Selengkapnya *paper* hasil terjemahan Sarah Greer saya sajikan utuh berupa beberapa gambar ini:

IV

THE ADMINISTRATIVE THEORY IN THE STATE

By

HENRI FAYOL

Translated from the French

by

SARAH GREER

Institute of Public Administration

ADDRESS BEFORE THE SECOND INTERNATIONAL CONGRESS OF ADMINISTRATIVE SCIENCE AT BRUSSELS, SEPTEMBER 13, 1923

PUBLISHED BY KIND PERMISSION OF M. HENRI FAYOL, JUNIOR

IV

THE ADMINISTRATIVE THEORY IN THE STATE

In his address at the opening of the Congress of 1910 the President, M. Cooreman, gave the following definition of administration:

"By administration we mean three things connected but distinct: an ensemble of the executive power and the exercise of this power; the body of functionaries and employees; and the administrative personnel.

"The executive power as we understand it here, has for its object the maintenance of order, public security, the guarantee of a just and free use of common property, the management of the public wealth, the execution of the laws and the preparation and putting into effect of measures of general interest."

According to this definition the science of administration would include only knowledge relative to the services, agencies, the personnel and the operation of public administration. In fact the Congress of 1910 had in view only the administration of public affairs.

The meaning that I have given to the word *administration* and which has been generally adopted, broadens considerably the field of administrative science. It embraces not only the public service but enterprises of every size and description, of every form and every purpose. All undertakings require planning, organization, command, co-ordination and control, and in order to function properly, all must observe the same general principles. We are no longer confronted with several administrative sciences but with one alone, which can be applied equally well to public and to private affairs and whose principal elements are today summarized in what we term the *Administrative Theory*.

This seems to be also the opinion of those who planned this conference, for in their invitation we find the following:

"The importance of administration has grown steadily since the first Congress of Administrative Science held in Brussels in 1910. In consequence we have felt strongly the need of good administrative methods, and men such as Fayol, Solvay and Taylor have in recent years worked out certain formulas (or a synthesis of principles) which should in their opinion govern an administration.

"Belgium has made many successful experiments in this vast field. The Ministry of National Defense has just been reorganized according to the principles of Fayol. Some important steps in this direction have also been taken by the Ministry of Agriculture."

Following the example of Belgium, France has recently been inspired to reorganize the Department of Posts, Telegraphs and Telephones according to the Administrative Theory. In an act presented to the Parliament in July, 1922, the Government said as follows:

"Already many government activities in foreign countries have put into operation the administrative methods that we wish to introduce into the administration of the Postal Department. In Belgium the Minister of National Defense has published a brochure which contains an outline of the ideas of M. Fayol which have been successfully put into operation in his department.

"France must not be the last country to apply modern methods to public administration."

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Sumber: Gulick, Luther; Urwick, L; Mooeny, James D; Fayol, Henry; Dennison, Henry S; Whitehead, L.J. Henderson T.N; Mayo, Elton; Lee, Mary P. Follet John; & Graicunas, V.A. 1937: 99 & 101. Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University.Gambar disajikan oleh Levri Ardiansyah (2017).

We must not be deluded, however, by these official statements for in reality, the essential principles of the Administrative Theory do not seem to have been applied in their entirety. Even the organization and operation of industrial undertakings seldom conform to them, while governments are only waking up to the theory of administration and so far have limited themselves to certain questions of detail, without attacking the real problem.

The essential principle of the Administrative Theory is the great importance of management and this importance increases with the size of the undertaking. No enterprise can be successful without good management and every enterprise which is poorly managed is doomed to failure. This principle is as true for the State as for private industry. In my opinion, if the operation of the public service causes so much vexation it is because it is not well managed. The manner in which the subordinates do their work has incontestably a great effect upon the ultimate result, but the operation of the management has a much greater effect. The Congress of 1910 was concerned only with the work of the subordinate governmental employees, ignoring the machinery which is of first importance in the operation of any business. It is of this machinery that I am going to speak today.

I will first take up, from the point of view of the Administrative Theory, what should be the rôle, the means of operation and the structure of the high command in the public service, then I will glance at the manner in which these problems are understood and solved. I shall take up here only the question of agencies and shall not touch upon personnel. I assume that all the members of the Congress are familiar with the Administrative Theory. A résumé of it will be found at the end of the printed report of my address.[1]

Rôle, Means of Operation and Structure of the High Command in the Public Service

The structure of the high command in the public service has the same general aspect in all modern states; under different names we find almost everywhere a Prime Minister, ministers and directors.

The Prime Minister has authority over the entire governmental enterprise. It is his duty to conduct the enterprise towards its objective by endeavoring to make the best possible use of the resources at his disposal. He is the head of the ministers and must see that all essential functions are carried on. Each minister is in charge of a group of activities and is the head of the directors of his group. Each director is in charge of a certain activity and is the head of all the employees in his activity.

According to the worth of the men who occupy these three grades of responsibility and according to the means of operation at their disposal, this general plan of the high command in public administration has results ranging from the best to the worst.

Rôle

Let us see what is the principal rôle of the high command in the public service. In a great enterprise like the state, this rôle is essentially administrative; it consists

[1] This résumé is not given here, since an outline of Fayol's theory is to be found in L. Urwick's: "The Function of Administration with Special Reference to the Work of Henri Fayol," Paper V, pp. 115–130.

in preparing the operations of the various governmental services, in seeing that they are carried out and in watching the results. To prepare the operations is to *plan* and *organize;* to see that they are carried out is to *command* and *co-ordinate;* to watch the results is to *control*.

The preparation of the operations is the result of a twofold effort of planning and organization. To plan is to deduce the probabilities or possibilities of the future from a definite and complete knowledge of the past. To organize is to define and set up the general structure of the enterprise with reference to its objective, its means of operation and its future course as determined by planning; it is to conceive and create the structures of all the services that compose it, with reference to the particular task of each. It is to give form to the whole and to every detail its place; it is to make the frame and to fill it with its destined contents. It is to ensure an exact division of administrative work by endowing the enterprise with only those activities considered essential and with careful determination of the sphere of each of them. Thus in organization, the theoretical concepts of planning are translated into facts.

Execution is the result of command and of co-ordination. To command is to set going the services defined by planning and established by organization.

An order when given, sets into motion simultaneously in all the grades concerned, authority and responsibility, initiative and discipline.

But command would be powerless to ensure the complete execution of the will of the chief, if it were not supplemented by co-ordination. To co-ordinate is to bring harmony and equilibrium into the whole. It is to give to things and to actions their proper proportion. It is to adapt the means to the end and to unify disconnected efforts and make them homogeneous. It means establishing a close liaison among services specialized as to their operations, but having the same general objective.

Control is the examination of results. To control is to make sure that all operations at all times are carried out in accordance with the plan adopted — with the orders given and with the principles laid down. Control compares, discusses and criticizes; it tends to stimulate planning, to simplify and strengthen organization, to increase the efficiency of command and to facilitate co-ordination.

Such is the administrative rôle that our theory assigns to the high command in the public service, a rôle in which the Prime Minister, the ministers and the directors have each a part corresponding to their functions.

This rôle is much the most important one for each of these three upper grades, but it is not their only one. Besides his administrative rôle, the director of a public service must see to the carrying on of all important functions in accordance with the orders he receives from the minister. He must naturally follow closely the professional operations characteristic of his service (financial, military, judicial or industrial), and this requires of him an outstanding technical ability in his field.

The minister receives his directions from the Prime Minister, interprets them and transmits them to his immediate subordinates. He controls the actions of these subordinates and represents his Ministry before Parliament.

The Prime Minister, placed at the summit of the administrative hierarchy through the confidence of the Chief of State and of Parliament, has charge of the interests of the country as a whole. He selects the ministers and submits their names to

Sumber: Fayol, Henri. 1923. The Administrative Theory in the State. Translated from the French by Sarah Geer. Address before the Second International Congress of Administrative Science at Brussels, September 13, 1923. Published by kind permission of M. Henri Fayol, Junior. Edited by Gulick, Luther and Urwick, L. 1937: 102 & 103. Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University.Gambar disajikan oleh Levri Ardiansyah (2017).

the Chief of State and to Parliament for approval; and on important questions gives them their directions or indicates the course to be followed. He plans, organizes, commands, co-ordinates and controls the public service as a whole. Grave questions of general interest constantly demand his attention and take a great deal of his time and he must also maintain relations with foreign powers. All of this imposes upon him an enormous responsibility which is often beyond the strength of a man most capable physically and mentally.

Such is the rôle of the chiefs at the three upper levels of public service.

Means of Operation

What are the means of operation at their disposal? Let us suppose that the personnel of each activity at every rank of the hierarchy are efficient and equal to their tasks. Let us also suppose that Directors, Ministers and the Prime Minister are equal to their calling. Will this suffice to ensure the efficient operation of the Government? Without hesitation I say No.

Staff

Whatever their ability and their capacity for work, the heads of great enterprises cannot fulfil alone all their obligations of correspondence, of interviews, of conferences and of countless other duties; they must ensure command and control, superintend reports preparatory to decisions, have plans of operations drawn up; encourage and effect improvements. Thus they are forced to have recourse to a group of men who have the strength, competence and time which the Head may lack. This group of men constitutes the Staff of the Management. It is a help, or reinforcement, a sort of extension of the manager's personality, to assist him in carrying out his duties. The Staff appears as a separate body only in large undertakings and its importance increases with the importance of the undertaking. The staff of a Prime Minister, of each Ministry and of each Direction includes: a secretariat, consultants and accountants. The Prime Minister has also a Council for Improvements or Reforms.

Administrative Tools [3]

Administrative tools are essential to the management of any great public business. They are a vast documentation which includes the present, the past and the future, to which the élite of the personnel contribute and which, together with its other sources of information, enables the management to make under the best possible conditions, decisions whose consequences and repercussions can be foreseen.

It is the practical means by which planning, organization, command, co-ordination and control are carried out. It is obvious that in order to manage an undertaking the manager must have a thorough understanding of it. He must be conversant with all that concerns its objectives, its needs, its resources (raw materials, plant machinery, capital, staff, surroundings, etc.), but the acquisition of this knowledge requires a great deal of time and effort, and if studies have not already been made and clear and complete reports prepared, the manager in office may lack the information that he requires and a new manager remain for a long time ignorant of the most essential information about the business.

[3] Outillage administratif.

I am going to describe briefly the administrative tools that I used during fifty years in a great mining and metallurgical undertaking. Naturally the different parts of the machinery were adapted to the nature and importance of each of the units which formed the concern, but the general outline of the documentation was always the same, and it can be used in every kind of undertaking. It is as follows:

1. General Survey. — A general survey (of the present situation as well as of the past and the probable future of the business); this survey is made for each unit and also for the business as a whole. The review of the *past history* of the concern is made in order to recall the reasons which determined the founding of the business, the changes it has undergone, and the results obtained. The study of the *present situation* relates to the actual condition of all the parts and of the whole of the resources and needs of the undertaking envisaged from every point of view. The *probable future* is that which is foreseen in taking into account the past, the present and any economic, political and social changes that may take place.

In order that this survey may be made efficiently, it is necessary to have an experienced head, expert in the management of men, capable of getting a loyal and active co-operation from his subordinates and taking a large part of the responsibility that the survey implies. From this study should emerge the general scheme and the directives which serve as a basis for the *Plan of Operations*.

2. Plan of Operations. — The plan of operations is the union or synthesis of various plans: annual, long term, short term, and special. It is a sort of picture of the future where approaching events are set forth clearly and remote events appear vaguely in proportion to their distance. It is the progress of the undertaking foreseen and prepared for a certain length of time. The need of a plan of operations is recognized by all, but the practice is not yet general. Many private undertakings leave much to be desired in this respect; while in government, planning is still the exception and not the rule, because the preparation of a plan requires a great effort on the part of the higher personnel and also a competent and stable head, aided by a good staff.

3. Reports or Proceedings. — The report on operations carried out is the complement of the plan of operations.

Reports of subordinates to their superiors are established for each rank of the hierarchy; they are daily, weekly, monthly or annual, and are a powerful method of control. The use of the plan of operations and the detailed report by each grade of the service permit us to realize two highly important administrative objectives, which are the sense of responsibility among employees and confidence among the administrative authorities.

4. Minutes of Conferences between Heads of Departments. — There is a weekly conference of heads of offices, bureaus and departments with the manager. Each office head gives an account of the work of his department, its accomplishments and the difficulties encountered. After the discussion the manager makes his decisions. Everyone leaves the conference knowing what he has to do and knowing also that he must give an account of it. In one hour the manager has reviewed the principal happenings of the past week and the plans for the following week, and this is a powerful method of co-ordination and control for him.

Sumber: Fayol, Henri. 1923. The Administrative Theory in the State. Translated from the French by Sarah Geer. Address before the Second International Congress of Administrative Science at Brussels, September 13, 1923. Published by kind permission of M. Henri Fayol, Junior. Edited by Gulick, Luther and Urwick, L. 1937: 104 & 105. Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University.Gambar disajikan oleh Levri Ardiansyah (2017).

The minutes of this conference, where all the activities of the business are unfolded and explained by the leading participants are of the greatest importance to the general management. No report or any amount of correspondence could give him such a perspective of the personnel.

5. Organization Chart. — Organization charts, with branches like genealogical tables, permit us to seize at a glance, better than we could with a long description, the organization as a whole; the various activities and their boundaries; the ranks of the hierarchy; the position occupied by each employee, the superior to whom he reports and the subordinates under his control. The organization chart draws the attention to overlappings and encroachments, to dualities of command and to offices without incumbents. It is a kind of model which shows the imperfections of the staff as a whole and which can be used each time the whole or any part of the organism is reorganized or modified. Accompanied by a clear definition of the functions of each, it defines their responsibilities and permits us to decide quickly what employee we should apply to, in order to deal with a certain matter.

These administrative tools are indispensable in the management of large enterprises. They permit the carrying out under good conditions, of planning, organization, command, co-ordination and control, or in short, efficient administration, which without them would not be possible.

I should like to call attention to two very important administrative results which we can accomplish by their use and whose general absence in government is one of the chief reasons for the inefficient operation of the public service: the sense of responsibility among employees and confidence among administrative authorities.

Responsibility

A plan of operations for an activity, drawn up by the head of the activity, places an obligation upon him, whatever his rank in the hierarchy. Most of the heads of activities take part in drawing up the plan of operations. The weekly, monthly or annual report, by contrasting plan and accomplishment, shows to what extent these obligations have been fulfilled, and from this springs the sense of responsibility. Without a plan there is no obligation, and without a report there is no comparison of accomplishment with plan, and thus no responsibility in either case. The absence of plans and reports creates a general irresponsibility among employees of the State.

Confidence Among Administrative Authorities

In a corporation, confidence among the directors results from the fact that the plans of the chairman are known and approved by the board of directors who are constantly kept in touch with activities and results, while in the state a minister takes charge of a department about which he knows little and which he administers without a serious or definite plan. Both the Parliament and the employees are ignorant of his intentions, and uneasiness and distrust prevail. But let us suppose a plan of operations drawn up by the employees, agreed upon by the minister and submitted by him, first to the Cabinet and then to Parliament. There is thus a unity of opinion. The Parliament knows what the minister intends to do; regular reports show that the plan is being faithfully carried out and confidence takes the place of the distrust which now prevails among government officials.

The co-operation that is established among employees in all ranks of the hierarchy by the preparation of reports, is another advantage of administrative tools. This constitutes a real participation in administration by minor employees and is perhaps the best participation that could be devised.

Administrative tools have many other virtues. They imply that no one will embark upon any course of action without having foreseen the consequences. This means putting planning into operation, and thus an imperfect machine will not be destroyed without a better one to replace it. One would not turn over a government undertaking to private enterprise, or the reverse, without being quite sure that the change would be beneficial to the Nation. By putting these administrative tools into operation in the state we might bring about a considerable modification in the orientation of public opinion.

Structure and Organization

Given the rôle and means of operation of the high command in the public service, what should be its structure and organization? We will assume that Directors, Ministers and Prime Ministers are amply endowed with physical, intellectual and moral qualities, as well as with general culture, and will leave these aside to confine ourselves to questions of competence and of organization.

Director

The Director of a governmental activity must have the following qualities and competence, necessary to the head of any great private enterprise: administrative ability; professional competence appertaining to the enterprise; general notions on all essential functions, and stability. If he can keep his post for ten years he is considered stable, if he cannot stay in one place longer than a year or two he is unstable. He should be supplied with a good staff and good administrative tools.

The Minister

The Minister must be a good administrator, able to plan, to organize, to command, to co-ordinate and to control. He should have a wide general knowledge of the affairs for which he is responsible, but he is not required to have a special competence in the various professions characteristic of his department, this being the function of the Directors. The importance of stability has not yet been realized by parliamentary governments and this is not one of the requirements for a minister. He must, however, have platform eloquence, for he plays his principal rôle in Parliament. There he is the representative of the activities under his administration and must ask for necessary funds for them and defend his requests against attacks. He is called a good minister if he wins the approbation of the deputies and senators, but more than parliamentary eloquence is needed to direct a ministry. It is conceivable that a good lawyer might become a brilliant minister in a few weeks, but his talent as an orator would not make him a good administrator. Finally the minister should be provided with a good staff and good administrative tools. His staff should include accountants independent of those under the directors.

Sumber: Fayol, Henri. 1923. The Administrative Theory in the State. Translated from the French by Sarah Geer. Address before the Second International Congress of Administrative Science at Brussels, September 13, 1923. Published by kind permission of M. Henri Fayol, Junior. Edited by Gulick, Luther and Urwick, L. 1937: 106 & 107. Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University.Gambar disajikan oleh Levri Ardiansyah (2017).

Prime Minister

The Prime Minister should above all things be a good administrator. He cannot be expected to have a profound personal knowledge of all the problems incident to the functioning of the government enterprise, but usually he has had long political experience and with the assistance of a good staff and good administrative tools he can make decisions with a thorough knowledge of the case. His staff should include a secretariat, special consultants, accountants and a Council for Improvements and Reforms. The Prime Minister must possess parliamentary eloquence to a high degree.

The Actual State of Affairs

The above would be the recommended organization of the high command in the public service according to the Administrative Theory. It would be interesting to see to what extent this idea is grasped and carried out in the various constitutional States, but today I must confine myself to a rapid glance at the situation in France, feeling convinced that I could apply most of my observations and conclusions to the other countries.

Prime Minister

In France, for several decades the Prime Minister has been surrounded by from twelve to fifteen ministers and several under-secretaries of state. Besides general administrative supervision over the government as a whole, the Prime Minister is in charge of one of the government departments and usually one of the most important. As Prime Minister he has neither a secretariat, nor accountants, nor special consultants, nor a Council for Improvements and Reforms. He has besides, no administrative tools. He would not even have an office or attendants but for the government department of which he is in charge.

Aside from his personal worth which is usually high, the Prime Minister has at his disposal none of the various means of operation recognized as indispensable if he is to fill properly his office as Head of the Government. He has too many ministers to direct, and it is absolutely impossible for him to administer the Public Service as a whole efficiently and at the same time to be head of a department. There we have an extraordinary and incredible fault in organization. Whatever the circumstances that brought about this state of affairs there is no reason to maintain it in the face of the enormous harm that it causes the Nation. The remedy lies in the suppression of portfolios, in the reduction of the number of ministers, in the setting up of a staff, and in administrative tools.

Minister

In order to ensure the successful operation of his department the Minister should be a good administrator with a certain competence in the affairs of which he has charge.

He should receive orders from only one chief and have but a small number of subordinates directly under him. But in actual fact the Minister is seldom a good administrator who has learned to plan, to organize, to command, to co-ordinate and to

control, and he has rarely had any training for his position. He is responsible for the activities of his department to the Prime Minister and to Parliament, but he renders no report to either. If there is any happening out of the ordinary, of such a nature as to arouse Parliament or upset the Cabinet, the Minister discloses it and the President intervenes.

The Minister usually lacks the administrative ability, professional competence and time which are necessary to the head of a great enterprise.

On taking office he finds himself immediately confronted with a great number of problems, of which he has no knowledge but which urgently demand attention. He has no documentation to enlighten him, he seldom has a staff of special consultants and he is unable to consult the head of the Government, who is too busy to follow the details of current affairs. To add to this he usually finds that he must deal directly with some twenty subordinates. Swamped, submerged and unable to make decisions from first hand knowledge, the Minister generally abandons the attempt to exercise any executive authority and it is difficult to tell what to dread most, his active intervention or his inaction. Current operations are ensured somehow by directors acting independently of each other, like the ministers, without co-ordination. It is a system of water-tight compartments.

Thus it is not a matter for surprise if certain activities which are partly under two departments wait long months for decisions which should be made in a week, and if those which are under two ministries wait indefinitely. It is also not surprising that ministers who might seriously influence the interests of the state, find themselves powerless to carry out the least reform. The remedy lies in a better recruitment of government personnel and in introducing the use of good administrative tools. The Cabinets also would probably last longer under a better functioning of government, and their present harmful instability be lessened.

Directors

The Head of a government activity as in the case of the Manager of a big private undertaking, should have the following qualities: administrative ability, professional competence and stability. This combination of qualities is sometimes met, but it may also happen to be completely lacking.

On November 4, 1920, I delivered to M. Louis Deschamps, Under-Secretary of State, a report which he had asked me to make on the organization and operation of the Department of Posts, Telegraphs and Telephones of which he was Director General. The report began thus: "During the past year I have been studying the government undertaking of P.T.T., and I have noted many faults of administration of which the following are the most outstanding:

1. An unstable and incompetent chief at the head of the undertaking;
2. No long term plan;
3. No budget;
4. Abusive and excessive interference from members of Parliament;
5. No incitement to enthusiasm and no reward for services rendered;
6. Absence of responsibility."

Sumber: Fayol, Henri. 1923. The Administrative Theory in the State. Translated from the French by Sarah Geer. Address before the Second International Congress of Administrative Science at Brussels, September 13, 1923. Published by kind permission of M. Henri Fayol, Junior. Edited by Gulick, Luther and Urwick, L. 1937: 108 & 109. Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University.Gambar disajikan oleh Levri Ardiansyah (2017).

Chance had brought me into contact with one of the great enterprises where the usual faults of public administration were most pronounced and I set myself to prove that most of these faults are the result of bad management. To remedy these defects the Government, citing the Administrative Theory, has recently proposed to set up a committee of consultants without changing in any way the method of recruiting the directorate. Now let us see, according to my survey of 1920 how this recruitment is made: "A ministerial crisis arises. The composition of the new ministry appears in the Officiel of January 16. The Under-Secretary of State, Monsieur A., lawyer and deputy, holding the office of Director General of the P.T.T. is replaced by the Under-Secretary of State, Monsieur B., lawyer and deputy. January 17, Monsieur B. comes to the office and meets Monsieur A. These gentlemen talk together for a few minutes, then Monsieur A. takes his leave, having already emptied the drawers of his desk. There has been no presentation of the heads of departmental activities to the new chief and no plan of operations is given to him for his guidance.

"Thus takes place a handing over of office in one of the most important administrations of the Government. The chief who is leaving took office twelve or fifteen months earlier without knowing anything of the great undertaking he was called upon to direct, and the new chief is in the same position and will probably leave after the same interval." A head thus recruited has neither stability nor competence and it is highly probable that he is not gifted with administrative ability, nor does he have a good staff nor good administrative tools. The Administrative Theory condemns the illusion that under these conditions, the administration of the P.T.T. could be improved by the addition of a committee of consultants. The appointment of such a committee is generally an admission of helplessness on the part of the Administration and a way of lulling the vigilance of those interested. Even if all the subordinate personnel were very efficient the undertaking would not function well with a mediocre head. It is like an individual all of whose limbs are sound, but who has a diseased brain. We must realize that while all possible reforms may be carried out under a good management, no serious reforms can be carried out under a poor management. The Administration of the P.T.T. evidently does not understand the Administrative Theory.

This is not the case in another great French Administration — the Army. Planning and organization are constant preoccupations with our great military chiefs; authority, discipline, unity of management, unity of command, and subordination of individual interests to the common good are constantly kept in mind. The National Military School has received the Administrative Theory with favor because it recognizes in it a synthesis of the ideas that it advocates. But these ideas have not yet reached the ministries, and so the abuse of written communications continues to prevail, and a Minister has twenty assistants where the Administrative Theory says that a manager at the head of a big undertaking should not have more than five or six.

The persistence of faults of organization in the directorate of the P.T.T., taken as an example, gives an idea of the difficulty presented by the reform of the public service, and this difficulty has recently given rise in several countries to special organisms called Reform Commissions, or Economy Commissions.

Councils for Improvements

The Administrative Theory supposes that in every great enterprise there is a permanent council for improvements whose function it is to make researches on all possible improvements in the enterprise and to carry them out under the auspices and authority of the director.

An organism of this kind seems to me indispensable in order to study and carry out reforms in the Enterprise of Government, which perhaps, more than any other, is in constant need of them.

A firm determination and continued action are needed to overcome the resistance that ignorance, routine and individual interests oppose to reforms. Temporary manifestations in which the higher authorities take little part can have no important results. Continued action requires a special permanent organism.

The firm determination of a Head, such as the Prime Minister, must be based upon a profound conviction of the need for reform and on an accord with the President and with Parliament. This accord in turn must have the support of favorable public opinion.

M. François Marsal, Minister of Finance, appointed in 1920 a High Commission of Inquiry to look into the question of possible retrenchments in the budget. M. Maurice Bloch, Procureur Général of the Cour des Comptes was chairman of this commission, which was succeeded in August, 1922, by the Economy Commission (Commission Supérieure des Économies) under the chairmanship of M. Louis Marin. The Commission has found many defects of organization and function in most of the government services, but when its work is finished in a few months and its findings and recommendations are embodied in a report, what will be the fate of the latter? We have seen that the Prime Minister is much too busy to study a voluminous and complicated document requiring a great deal of special knowledge, and we also know that he has no group of men around him whose duty it is to perform this task for him. The Ministers are too absorbed by their routine duties and too uncertain of their tenure to devote themselves to difficult studies which take time and whose recommendations they cannot put into effect, and which can only create embarrassment for them. As for the Directors, whose tranquillity has been disturbed by the Commission and who have sometimes been severely taken to task by it, they usually have no sympathy for the reforms it proposes.

Under these conditions it is highly probable, not to say certain, that this attempt at reform will be futile like most of those which have preceded it.

It would be otherwise if there were a permanent Council for Improvements or Reforms associated with the Prime Minister. This council would have for its mission to guide and direct studies on reforms in the various departments and offices and to see that they are carried out. The creation of such a body should be carefully studied by competent authorities and the following set-up is suggested only as a tentative plan:

The Council for Improvements should be composed of five members:

The first would have charge of planning, organization, command, co-ordination and control, or in other words, of administration;

Sumber: Fayol, Henri. 1923. The Administrative Theory in the State. Translated from the French by Sarah Geer. Address before the Second International Congress of Administrative Science at Brussels, September 13, 1923. Published by kind permission of M. Henri Fayol, Junior. Edited by Gulick, Luther and Urwick, L. 1937: 110 & 111. Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University.Gambar disajikan oleh Levri Ardiansyah (2017).

The second of financial problems;
The third of the organization of accounting and statistics;
The fourth of legal matters;
The fifth should be a business man.

The Council for Improvements should be represented in each government department by a liaison officer subordinate to the Minister, and particularly charged with the duty of keeping him in touch with the studies being made in his department.

The Council itself should be in charge of the improvements to be made in the machinery of the superior services of the state.

In the work of governmental reform the directing powers of the state need to be helped, sustained and encouraged by public opinion. Public opinion, however, is not prepared for this: unenlightened upon the projects for reform and ignorant of the benefits to be derived from them, it remains indifferent and sceptical. I believe it could be aroused by imbuing it with the idea that there are important reforms both necessary and possible, and that among their results might be a considerable reduction in taxes and a very appreciable decrease in the cost of living.

Public opinion may be guided in the direction of reform by a knowledge of the principles and rules of the Administrative Theory and we can help to spread this by teaching it in the institutions of higher learning. But the effect will be slow and we can hasten it by immediately putting into use administrative tools (*outillage administratif*) in all the public services.

At the same time we can endeavor to arouse public opinion by showing the economic advantages which should result from the projected reforms. It is for this reason that I present to the Congress the following estimates which do not pretend to be rigorously exact, and which for me are only a means of interesting public opinion.

I have endeavored to put into figures the pecuniary interest which the Management of Government has for us. This interest is composed of two elements, one of which is easily determined — it is the cost of government as represented by its annual budget plus its extraordinary requirements (immovable assets, supplies, etc.). If the administration is efficient, these expenditures, however high, are justified — the country has its money's worth. If on the contrary the administration is bad, the expenditures constitute a total loss. But we rarely find that either term can be applied sweepingly, for we seldom find an administration completely good or completely bad. The truth is that good and bad are mixed in varying proportions. Is it rash to assert that under the best administrations there is room for reforms that would lower the cost of government without curtailing its services? What then shall we say of the other administrations? Taking the public services as they are, the good with the bad, in order to form an idea, can we not estimate at 10 per cent of the ordinary and extraordinary budget, that part of the expenses of administration that should interest public opinion, in the sense that the country will spend it or not according to whether the business of government has been efficiently managed or otherwise?

But this is only one element of the situation. The second is the repercussion, good or bad, that the operation of the government necessarily has upon the general economic life of the Nation. We cannot possibly estimate this in figures, but every one knows that it represents a huge sum. Taking, for example, the French government

service of the P.T.T., where the capital actually invested is estimated at one billion francs, the coefficient of 10 per cent would show an economy of 100 million francs as the advantage of a good management over a bad one; and when the proposed future capitalization of two billion francs has been effected, there would be an economy of 300 millions, without counting the much more important advantages that would accrue to the country as the result of a better administration of the service. If this calculation were extended to all the activities of the state, the result would be a great many billions, and billions of economies means reduction of taxes, more abundant production and decreased cost of living.

The High Commission of Inquiry (Comité Supérieur d'Enquête) under M. Maurice Bloch, estimated at about two billions the amount of savings that could be realized without any important administrative reorgnization, by simply cutting down appropriations and demanding more efficiency from the various government services. The High Commission for Economy (Commission Supérieure des Économies) under M. Louis Marin estimated that a complete reorganization of the Government under a new plan would result in an economy of four or five billion a year. Such, according to this estimate, is the cost to France of a bad management of public affairs. This is not in contradiction with the estimate of the Commission of Enquiry nor with that I have made above for the P.T.T. If we add to this the inconveniences of every kind that are the result of an inefficient government and the money the inhabitants failed to earn for the same reason, we are led to double the above sum and we find ourselves confronted with the formidable figure of eight or ten billions.

In a country of less than forty million inhabitants, this sum represents a loss of more than 200 francs to each person — 100 francs lost and 100 francs not earned. To the average family consisting of parents and two children, an inefficient government costs more than 800 francs a year: the half of this sum that corresponds to the actual loss, should be deducted from the family income, for it goes to the state for taxes. The other half affects the very basis of the family fortune, for it applies to wealth in process of formation, whose development is paralyzed for individuals, without any immediate or remote profit to the state. It is true that this estimate cannot pretend to be really or even approximately exact, for the income and wealth of the inhabitants are not uniformly affected by inefficient government, but if the mean indicated is necessarily not exact, the calculation that leads to it is based none the less on the uncontrovertible principle that all French citizens bear a part of the expense of government and have an interest in the good management of public affairs.

Whatever their economic status all French citizens bear a part of the expense of government. Even though taxes on wealth and income reach only a fraction of the taxpayers, taxes on commodities strike all without distinction. All of these taxes could be reduced if the needs of the state were less, and especially if there were effected that indispensable condition to any important economy, the reorganization of the High Command of the Public Service. We are therefore forced to maintain that the mass of citizens, and not only the most fortunate, bear under the guise of a reduction of income the disastrous effects of our inefficient administration.

The taxpayers of all countries have an interest in the good management of public affairs, and hence in administrative reform. The abusive levies effected by the state

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directly or indirectly on the revenues of capital and labor form an obstacle to thrift, hamper the formation of new wealth and in consequence rob production of its means of development. Industry, agriculture and commerce are not alone to suffer from this state of affairs: the consumer bears also the unpleasant consequences, since every restriction of economic activity is manifested by diminished comforts and a rise of prices.

These considerations seem to me of a nature to interest the public in administrative reforms and to encourage the Managers of the State to study them and put them into effect. I am anxious to have the Congress share this opinion.

What is my conclusion? It is that the essential condition for a successful operation of the Public Service is a good High Command, and a good High Command entails a good staff and good Administrative Tools.

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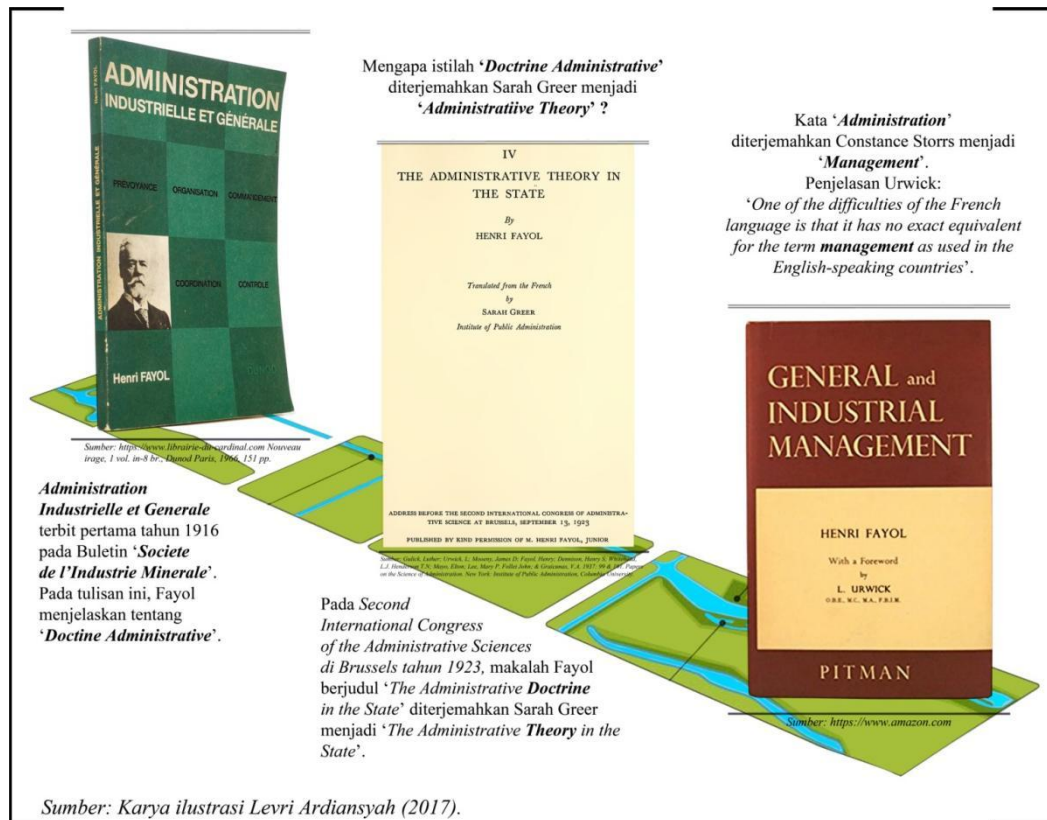
Translated Fayol's Word 'Administration' by 'Management'
Dari '*Administration Industrielle et Generale'* menjadi '*General and Industrial Management'*

Sumber: Karya ilustrasi Levri Ardiansyah (2017).

Kata '*Administration*' telah diterjemahkan menjadi '*Management*'. Perihal ini Urwick menyatakan amat menyayangkan sikap Mrs. Storss dan Messrs Pitman yang telah memutuskan untuk menterjemahkan kata '*Administration*' menjadi '*Management*'. Meski demikian, Urwick bersedia menuliskan kalimat pengantar untuk tulisan Fayol, Henri (1916) berjudul '*Administration Industrielle et Generale*' yang diterjemahkan oleh *Constante Storrs* menjadi berjudul '*General and Industrial Management*'. Pada kalimat pengantar Urwick (1954: xii) tercetak '*Personally, and taking the long view, I feel that it is a pity that Mrs. Storrs and Messrs. Pitman have decided to translate Fayol's word "administration" by "management." In the original English translation his title was translated directly, " administration '* . Merunut pemikiran cetakan tulisan Urwick terbaca alasan tindakan penterjemahan ini yakni (1) pada Bahasa *French* tidak ada kata yang setara (*exact equivalent*) untuk istilah '*management*' yang biasa digunakan pada percakapan sehari-hari masyarakat yang berbahasa *English* (*One of the difficulties of the French language is that it has no exact equivalent for the term management as used in the English-speaking coimtries*) dan (2) pakar organisasi *France* sendiri yakni Georges Bricard telah menterjemahkan '*Management*' menjadi '*Organisation*' yakni buku karya Frederick Winslow

Taylor berjudul '*Scientific Management*' telah diterjemahkan menjadi *'L'organisation scientifique du travail'*. Bagi Urwick, penterjemahan ini tidak saja salah tapi justru menjadi bertentangan terhadap filosofi Taylor (*This is, of course, not only far from being the case, but is the exact antithesis of Taylor's philosophy*). Bagi saya, sikap Urwick ini justru menyedihkan. Pada satu sisi Urwick menyayangkan penterjemahan kata '*Administration*' menjadi '*Management*' namun pada sisi lain Urwick mendukung buku terjemahan berjudul '*General and Industrial Management*'. Satu sisi lagi, Urwick menyalahkan penterjemahan '*Management*' menjadi '*Organisation*' terhadap buku karya Taylor, karena menjadi bertentangan dengan filosofi Taylor. Bukankah membiarkan kata '*Administration*' diterjemahkan menjadi '*Management*' tidak hanya bertentangan secara filosofis namun juga bertabrakan secara filosofis dan berakibat terjadinya kesalahan beruntun pada praktik administrasi maupun manajemen secara meluas ke berbagai penjuru dunia. Kutipan alasan Urwick ini saya gambarkan begini:

Personally, and taking the long view, I feel that it is a pity that Mrs. Storrs and Messrs. Pitman have decided to translate Fayol's word "*administration*" by "management." In the original English translation his title was translated directly, "administration."

Immediately there is much to be said for the course they have followed. One of the difficulties of the French language is that it has no exact equivalent for the term *management* as used in the English-speaking countries. When Le Chatelier was trying to make F. W. Taylor's ideas known to his country-men he was driven back on to the awkward paraphrase, "*L'organisation scientifique du travail*" as a translation of "scientific management." The objection to this phrase is, of course, that "*travail*" in French has the same political flavour as attaches in English to the term "labour": one of the great Trade Unions in France is known as the "Confédération Générale du Travail." Thus the French phrase carries the suggestion that scientific management is concerned solely with the work of operatives. This is, of course, not only far from being the case, but is the exact antithesis of Taylor's philo-sophy. It is the additional responsibility thrown on the managers which is the core of his teaching. Much of the

Sumber: Fayol, Henri. 1954: xii. General and Industrial Management. Translated from the French Edition (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

General and Industrial Management

Sampul buku karya Fayol, Henri (1954) berjudul ‘*General and Industrial Management. Translated from the French Edition (Dunod) by Constante Storrs with a Foreword by L. Urwick’* (London: Sir Isaac Pitman & Sons, Ltd) tercetak seperti ini:

GENERAL AND
INDUSTRIAL MANAGEMENT

BY
HENRI FAYOL

Translated from the French Edition (Dunod)
BY
CONSTANCE STORRS
B.A. (London), A.M.I.I.A.
Diploma in Education (Cantab.)

WITH A FOREWORD BY
L. URWICK
O.B.E., M.C., M.A., F.I.I.A.

LONDON
SIR ISAAC PITMAN & SONS, LTD.

First published 1949
Reprinted 1954

SIR ISAAC PITMAN & SONS, LTD.
PITMAN HOUSE, PARKER STREET, KINGSWAY, LONDON, W.C.2
THE PITMAN PRESS, BATH
PITMAN HOUSE, LITTLE COLLINS STREET, MELBOURNE
27 BECKETTS BUILDINGS, PRESIDENT STREET, JOHANNESBURG
ASSOCIATED COMPANIES
PITMAN PUBLISHING CORPORATION
2 WEST 45TH STREET, NEW YORK
SIR ISAAC PITMAN & SONS (CANADA), LTD.
(INCORPORATING THE COMMERCIAL TEXT BOOK COMPANY)
PITMAN HOUSE, 381-383 CHURCH STREET, TORONTO

MADE IN GREAT BRITAIN AT THE PITMAN PRESS, BATH
E4—(B.5546)

Sumber: Fayol, Henri. 1954. General and Industrial Management. Translated from the French Edition (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Daftar isinya tercetak seperti ini:

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Sumber: Fayol, Henri. 1954: xxiii & xxiv. General and Industrial Management. Translated from the French Edition (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

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Sumber: Fayol, Henri. 1954: xxv & xxvi. General and Industrial Management. Translated from the French Edition (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

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His "doctrine administrative" (administrative doctrine) is the totality of principles, regulations, and procedures which have as their object the facilitation of the management of enterprises (*gouvernement des entreprises*), including all kinds of plants or institutions, big and little, commercial, political, religious, or other.

All the operations possible in these enterprises Fayol divides into the following six groups:

1. Technical operations (production, manufacture, transformation).
2. Commercial operations (purchase, sale, exchange).
3. Financial operations (procurement and administration of capital).
4. Insurance operations (protection of goods and persons).
5. Accounting operations (inventory, balance-sheet, prime cost, statistics, etc.).
6. Administrative operations (foresight, organization, command, coördination, control).

These are the essential functions, and the first five groups need no further explanation. His "doctrine administrative" is concerned in particular with the sixth group. A distinction must, however, be made between *administration* and *management*.

Sumber: Zottan, Magyary. 1938: 20. The Industrial State. United State of America: Thomas Nelson and Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

Industrial State 1938

General and Industrial Management 1954

CHAPTER I

DEFINITION OF MANAGEMENT

ALL activities to which industrial undertakings give rise can be divided into the following six groups—

1. Technical activities (production, manufacture, adaptation).
2. Commercial activities (buying, selling, exchange).
3. Financial activities (search for and optimum use of capital).
4. Security activities (protection of property and persons).
5. Accounting activities (stocktaking, balance sheet, costs, statistics).
6. Managerial activities (planning, organization, command, co-ordination, control).

Be the undertaking simple or complex, big or small, these six groups of activities or essential functions are always present. The first five are well known—a few words will be enough to demarcate their respective spheres—but the managerial group calls for further explanation.

Sumber: Fayol, Henri. 1954: 3. General and Industrial Management. Translated from the French Edition (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Sumber: Karya ilustrasi Levri Ardiansyah (2018) merunut tulisan Fayol, Henri. 1954. General and Industrial Management. Translated from the French Edition (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd., disandingkan terhadap tulisan Fayol, Henri. 1923. 'La Doctrine Administrative dans I'Etat' yang diterjemahkan oleh Zottan, Magyary. 1938: 20 pada bukunya berjudul 'The Industrial State.' United State of America: Thomas Nelson and Sons.

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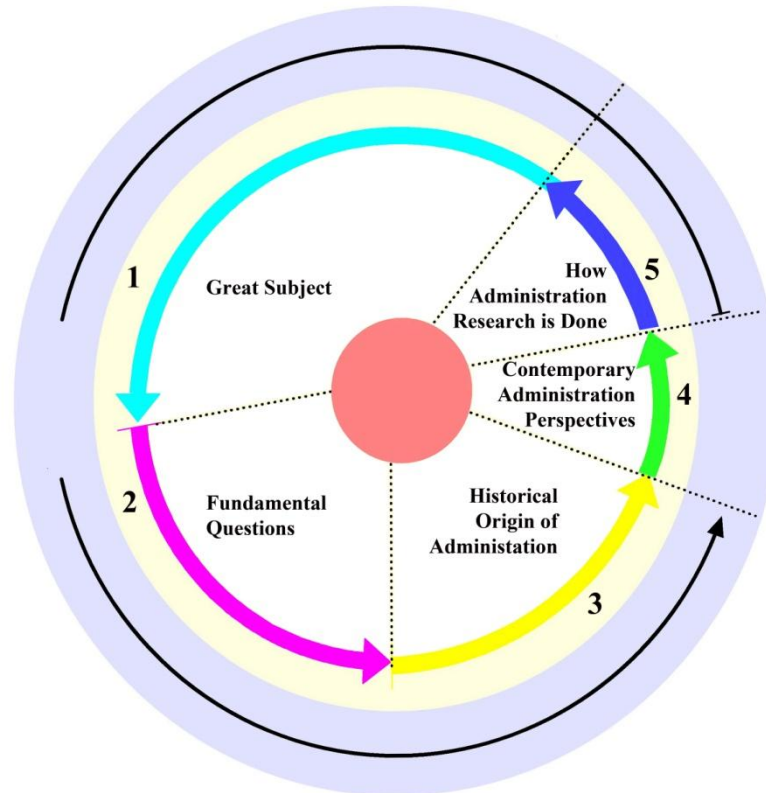
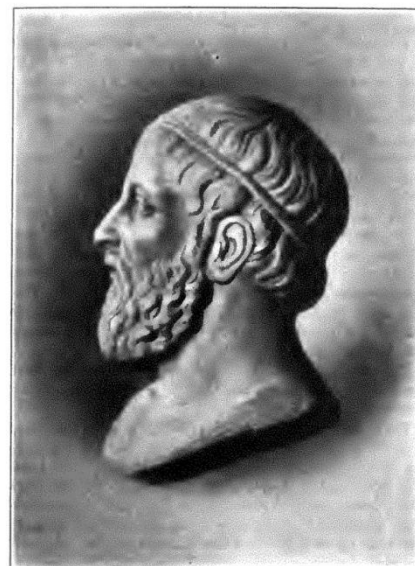
Toing and Froing on the Construction of Science of Administration

Aristotle: Prudence and Administrative

Sumber: Hasil pemikiran penulis (2012-2016) Sumber gambar: http://users.minet.uni-jena.de. 2009. System Biology of The Cell Cycle. University Jena: Germany. Gambar diolah oleh Levri Ardiansyah (2016).

Great subject Ilmu Administrasi dapat ditelusuri pada para filsuf terkenal di zaman Yunani Kuno yaitu Pithagoras dan Aristotle yang mengemukakan adanya keteraturan (*order*) dalam kehidupan, baik semesta maupun pada kehidupan manusia. Pithagoras (c. 570 – c. 495 BC) merefleksikan *order* sebagai *equality* dari *a fundamental relation* yang beliau jelaskan dalam geometri sebagai '*Pythagoras theorem'*. Sedangkan merunut pemikiran Aristotle, substansi dari keteraturan itu adalah kombinasi dari *matter* berupa komposisi dan *form* berupa bentuk nyata benda. Segala benda memiliki *potentiality* dan *actuality*. *Potentiality* merupakan kapabilitas untuk melakukan tindakan atau kapabilitas untuk menjadi apa yang diinginkan, jika tidak dicegah oleh hal lainnya (*if not prevented by something else*) sedangkan

PYTHAGORAS.
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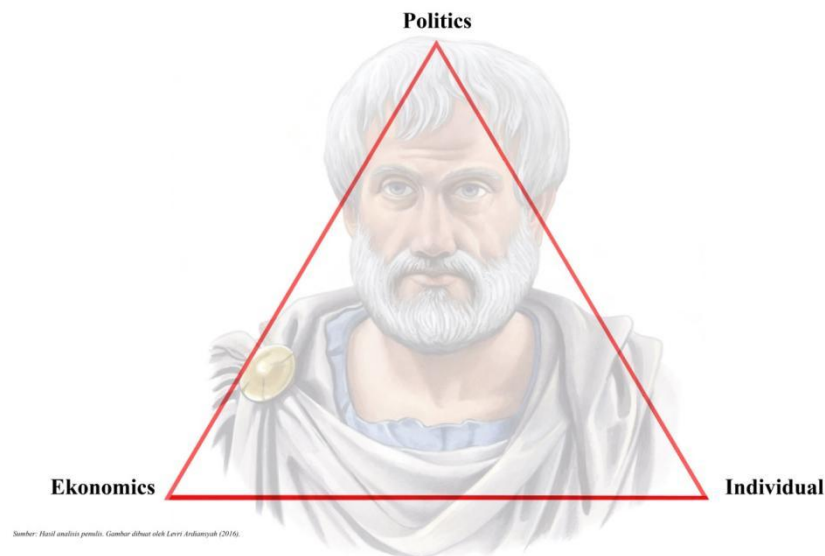
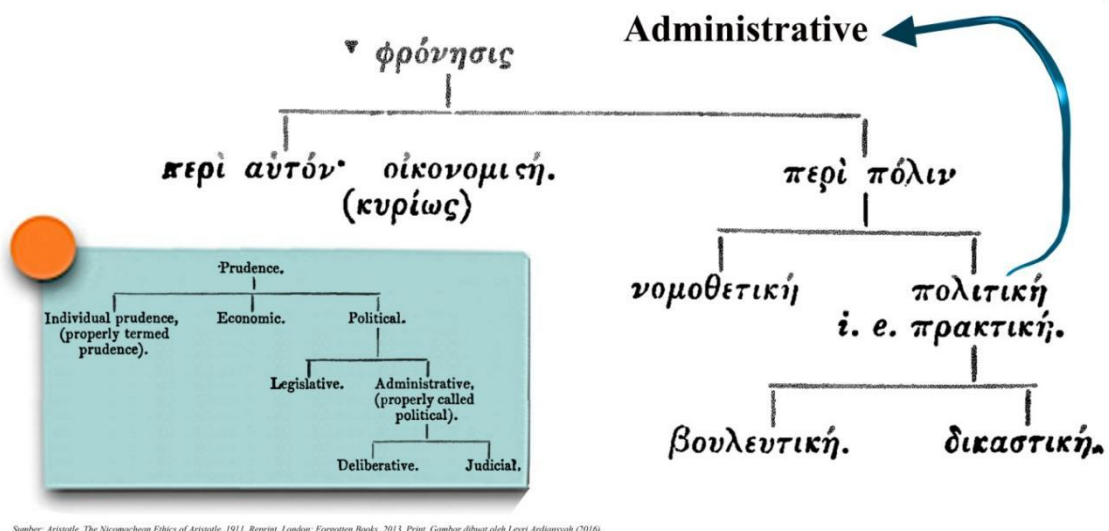
Sumber: Baldwin, James Mark. 2013:31. History of Psychology a Sketch and an Interpretation (Vol. 1). London: Forgotten Books. (Original work published 1913). Gambar diolah oleh Levri Ardiansyah (2016).

actuality merupakan tindakan untuk memenuhi tujuan dari *potentiality.* Sederhananya, *matter* dari segala benda ada pada *potentiality*-nya dan *form* merupakan *actuality.* Merunut pemikiran Aristotle terdapat suatu *essence* yaitu apa yang tersedia pada bentuk untuk mendukung *matter* dan pergerakan atau perubahan bentuk dari *formless stuff* hingga menjadi bentuk yang sempurna terjadi karena adanya 4 sebab (*four causes*), yaitu: (1) *material cause* (*what something is made of, the coming together of it parts*), (2) *efficient cause* (*the motion or energy that changes matter*), (3) *formal cause* (*a thing's shape, form, essence or definition*) dan (4) *final cause* (*a thing's reason or purpose or the intention behind it*). Aristotle mengajak berpikir tentang 2 pertanyaan mendasar yaitu pertama "*What it is that persists in a thing that gives it its continuity as a single thing, even while its properties and attributes change?"* seperti pada tunas *songgom** yang asalnya berwarna hijau, tumbuh besar menjadi tunas berwarna merah, lalu menjadi daun yang berwarna hijau, hingga kering dan gugur (**songgom adalah nama pohon yang terdapat pada hutan di Provinsi Banten*). Pertanyaan mendasar kedua adalah tentang "*what are the fundamental properties of a thing which give it its identity as a particular thing, and without which it would cease to be the same thing"*. Aristotle melihat kedua pertanyaan mendasar ini sebagai *inextricably entwined* yaitu memiliki keterkaitan erat satu sama lain.

Aristotle tidak hanya menerapkan *continuity as a single thing* dan *fundamental properties* dalam bidang Ilmu Alam tetapi juga dalam politik dan ekonomi. Pada bidang Ilmu Alam, Aristotle melihat keduanya apa adanya yaitu bagaimana kontinuitas suatu benda seperti yang dituliskannya dalam *Organon* tentang evolusi dan klasifikasi makhluk hidup. Pada bidang politik dan ekonomi, Aristotle melihat keduanya sebagai *how it ought to be,* yaitu bagaimana seharusnya individu, politik dan ekonomi diatur agar tercipta keteraturan. Jawaban atas pertanyaan terakhir ini dikemukakan Aristotle sebagai *prudence,* yang dapat kita baca pada bukunya berjudul *Nicomachean Ethics of Aristotle* (1911). Prinsp *prudence* atau kehati-hatian dalam mengatur politik, ekonomi dan individu inilah yang dimaknai Aristotle sebagai administrasi.

Sumber: Hasil analisis penulis. Gambar dibuat oleh Levri Ardiansyah (2016).

Untuk mengatur politik, ekonomi dan individu, Aristotle menggambarkan struktur *prudence* yang menempatkan administrasi dalam fungsi melakukan penataan tata usaha *judicial* dan pertimbangan-pertimbangan administratif untuk kelancaran proses hukum sekaligus berfungsi memberi dukungan administratif pada lembaga legislatif agar politik dan ekonomi menjadi tertata secara tepat. Berikut ini adalah stuktur *prudence* yang dimaksud:

Sumber: Aristotle. The Nicomachean Ethics of Aristotle. 1911. Reprint. London: Forgotten Books, 2013. Print. Gambar dibuat oleh Levri Ardiansyah (2016).

Tindakan pengaturan *prudence* yang dilakukan administrasi dimaknai oleh Aristotle sebagai *political prudence* yaitu administrasi yang menata politik agar tercipta *good of the state,* karena tanpa administrasi, politik adalah tindakan perebutan kekuasaan yang tak berujung. Pada masa awal sebelum terbentuknya pemerintahan, tindakan pengaturan *prudence* yang dilakukan administrasi adalah *administer* yaitu *to serve* atau melayani dengan cara membuat rencana, struktur

dan prosedur yang mensinergiskan politik, ekonomi dan individu serta melaksanakan tata usaha.

Sumber: Hasil analisis penulis. Gambar dibuat oleh Levri Ardiansyah (2016).

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CHAP. VIII.

Of the different parts of Prudence.

1. Φρόνησις and the science of social life differ in essence.

Now political prudence, and prudence, are the same habit, yet their essence is not the same. But of prudence which is conversant with the state, one division, which is, as it were, a kind of master-prudence, is legislative; a second, which is particular, is called by the common name political; but this is practical; for a decree, as being the last thing, is the subject of action. Hence men say that practical statesmen alone regulate the state; for these alone act, like artificers.[a] But the prudence which refers to one's self and the individual appears to be most properly prudence: and this bears the common name of prudence. But of those three divisions,[b] one is economical, the second legislative, and the third political; and of this last there are two sub-divisions, one the deliberative, the other the judicial.

2. Various species of φρόνησις.

3. Now there must be a certain species of knowledge, namely, the knowing what is good for one's self; but on this question there is great difference

[a] Practical statesmen manage the detail, and therefore are more properly said to regulate the state, as a mason, properly speaking, builds the house, and not the architect.

[b] φρόνησις
περὶ αὑτόν· (κυρίως) — οἰκονομική. — περὶ πόλιν
περὶ πόλιν: νομοθετική — πολιτική i. e. πρακτική.
πολιτική: βουλευτική. — δικαστική.

The divisions of prudence may be denominated personal, economical, legislative, administrative, executive.

M 2

xlvi ANALYSIS OF [BOOK VI.

It surpasses political science or prudence, (1) inasmuch as the subjects with which it is conversant are superior to man.
(2.) Because its suojects are invariable.
(3.) Because, in a certain sense, even brute animals may be said to be prudent.

4, 5. Wisdom is superior to the science of social life, because, though man may be superior to all other animals, still there are many other things more divine than man.

Wisdom, therefore, is science, combined with intuition.

Hence Anaxagoras, Thales, &c., are called wise, but not prudent.

7. Prudence must have a knowledge of particulars as well as of universals.

8. Nay, particulars may possibly be even more important than universals.

VIII.—1. Political prudence and prudence are the same habit, but they differ, in that the object of the former is the good of the state, that of the latter the good of the individual.

2. There are various species of prudence, which are best exhibited in the following table :—

Prudence.
Individual prudence, (properly termed prudence). — Economic. — Political.
Political: Legislative. — Administrative, (properly called political).
Administrative: Deliberative. — Judicial.

3, 4. Prudence properly relates to our own affairs, and hence politicians are sometimes called busy-bodies. But still the happiness of the individual is so intimately involved with the good of his family and his country, that we cannot be devoted to the one to the exclusion of the others.

5, 6. Prudence is not easy to acquire; in proof of which we may adduce the fact that young men may become σοφοί, but not easily φρόνιμοι. Besides, the possibility of error is twofold,—in the universal and the particular.

Sumber: Aristotle. The Nicomachean Ethics of Aristotle. 1911. Reprint. London: Forgotten Books, 2013. Print. Gambar dibuat oleh Levri Ardiansyah (2016).

Oleh karena ini, Aristotle menegaskan bahwa bidang *prudence* adalah *to order* untuk tercapainya tujuan (politik, ekonomi maupun individu) dengan cara *right to do or not to do.* Administrasi adalah substansi keteraturan yang berlandaskan pada prinsip *prudence* dalam menata politik, ekonomi dan invididu sebagai suatu keterkaitan erat yang sinergis (*inextricably entwined*).

Sumber: Aristotle. The Nicomachean Ethics of Aristotle. 1911. Reprint. London: Forgotten Books, 2013. Print. Gambar dibuat oleh Levri Ardiansyah (2016).

Dengan demikian, keteraturan (*order*) adalah *great subject* dari Ilmu Administrasi, yaitu keteraturan tindakan manusia bekerjasama (*cooperative human action*) dalam politik dan ekonomi yang tertata dalam bentuk institusi berupa masyarakat (*society*) maupun organisasi berupa pemerintah (*government*), negara (*state*) dan organisasi lainnya.

Sumber: The Politics of Aristotle. Revised Text with Introduction, Analysis and Commentary by Prof. Franz Susemihl. 1894. New York: Macmillan and Co. www.ForgottenBooks.org. Diolah oleh Levri Ardiansyah (2016).

Taylor and the Principle of Scientific Management

Berdasar pandangan Kuhn tentang paradigma, dapat saya tuliskan disini bahwa yang dimaksud dengan Paradigma Taylor merupakan cara pandang Taylor berdasarkan penelitian terdahulu maupun capaian-capaian ilmiah terdahulu (*the past scientific achievement*)

Scientific Management as a Complete Mental Revolution

Merunut pemikiran tulisan Taylor, Frederick W., (1912: 22, 28 & 29) berjudul 'The Principle of Scientific Management' pada buku berjudul '*Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven'* (Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College) yang disampaikannya sebagai pembicara dalam kapasitas Taylor sebagai seorang *consulting engineer*, tercetak '*Scientific management* merupakan *a complete mental revolution*' baik sebagai bagian dari *management* maupun sebagai bagian dari *men,* yakni adanya perubahan sikap mental (*mental attitude*) dalam menjalankan kewajiban (*duties*) dan menghadapi para pesaing (*opponents*). Kutipannya tergambar seperti ini:

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THE PRINCIPLES OF SCIENTIFIC MANAGEMENT

BY FREDERICK W. TAYLOR

Consulting Engineer, Philadelphia

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I want to tell you as briefly as I can what Scientific Management is. It certainly is not what most people think it to be.

ON SCIENTIFIC MANAGEMENT 29

It is not a lot of efficiency expedients. It is not the printing and ruling of a lot of pieces of blank paper and spreading them by the ton about the country. It is not any particular system of paying men. It is not a system of figuring costs of manufacture. It is none of the ordinary devices which unfortunately are going by the name of Scientific Management. It may in its essence be said in the present state of industry to involve a complete mental revolution, both on the part of the management and of the men. It is a complete change in the mental attitude of both sides towards their respective duties and towards their opponents. That is what constitutes Scientific Management.

Sumber: Taylor, Frederick W. 1912: 22, 28 & 29. The Principle of Scientific Management. Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven. Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada tulisan Taylor ini terbaca bahwa Taylor (1) menggunakan istilah yang berasal dari Psikologi yakni *mental* untuk (2) menjelaskan tentang perubahan revolusioner pada manajemen yang (3) terfokus pada perubahan sikap saat (4) bertindak (*to act*) menjalankan kewajiban (*duties*). Taylor menyadari bahwa (1) *scientific management* diterapkan pada periode yang sulit yakni masa perubahan dari *old management* menuju *new management;* dan (2) menerapkan *mental revolution* dapat kian memperparah keadaan manakala *mental revolution* yang menyebabkan terjadinya pengaturan kembali sikap (*readjustment of attitude*) pekerja maupun manajemen dalam menjalankan kewajiban masing-masing, namun pada sisi lain belum menghasilkan pendapatan yang memadai. Merunut pemikiran tulisan Taylor, Frederick W., (1912: 30) berjudul 'The Principle of Scientific Management' pada buku berjudul '*Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven'* (Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College) terbaca cetakan yang terkutip pada gambar ini:

That is mere assertion, but in proof of the fact that this harmony does exist between the workman and the employers under Scientific Management, I wish to make the statement that until perhaps three months ago there never had been a single strike of men employed under Scientific Management. Even during the difficult period of changing from the old management to the new, that difficult and dangerous period when a mental revolution was taking place and causing readjustment of attitude towards their own duties and towards the duties of the management, there had never been a strike until this year. This system has been applied to a great number and variety of industries, and the fact that until recently there had never been a single strike is ample proof that these friendly relations actually exist between both sides. That, perhaps, is the most important characteristic of Scientific Management.

In order to explain what Scientific Management is, I want to present first what I believe all of you gentlemen will recognize as the best of the older types of management and to contrast with that type the principles of Scientific Management. If you have an establishment with 500 or 1,000 men, there will be, perhaps, twenty different trades represented. Each of the workmen in those trades has learned practically all he knows from watching other workmen. When

Sumber: Taylor, Frederick W. 1912: 30. The Principle of Scientific Management. Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven. Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College. Gambar disajikan oleh Levri Ardiansyah (2017).

Dengan tetap menerapkan *mental revolution* pada periode yang membahayakan, pertanyaannya adalah 'Apa manfaatnya'? Merunut pemikiran tulisan Taylor, Frederick W., (1912: 32) terbaca bahwa manfaat pertama adalah meningkatnya inisiatif para pekerja untuk bekerja lebih giat dengan niat yang baik (*good-will*) dan tulus (*ingenuity*) secara teratur dan konsisten. Tulisan Taylor, Frederick W., (1912: 32) berjudul 'The Principle of Scientific Management' pada buku berjudul '*Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven'* (Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College) tercetak:

> The first advantage which Scientific Management has over the older type is that under Scientific Management the initiative of the workmen is obtained with absolute regularity; their hard work, good-will and ingenuity are obtained with absolute regularity. I refer of course only to those cases in which Scientific Management is actually introduced and in operation, not where it has just been started; but in practically all cases where Scientific Management has been once established the initiative of the workmen is obtained with absolute regularity. That alone is a marked advantage of Scientific Management over the best of the other types.

Sumber: Taylor, Frederick W. 1912: 32. The Principle of Scientific Management. Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven. Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College. Gambar disajikan oleh Levri Ardiansyah (2017).

The Four Pinciples of Scientific Management

Manfaat *scientific management* ini dapat tercapai hanya dengan cara menjalankan kewajiban-kewajiban baru (*new duties*) yang belum pernah ditunjukan baik oleh para pekerja maupun manajemen. Kewajiban baru ini diurai oleh Taylor menjadi 4 kelas yang dinamai oleh Taylor sebagai '*The Four Pinciples of Scientific Management*'. Tulisan Taylor, Frederick W., (1912: 32) berjudul 'The Principle of Scientific Management' pada buku berjudul '*Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven'* (Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College) tercetak:

This is not, however, the greatest advantage of Scientific Management. This is the lesser of two advantages. The greater advantage comes from the new and unheard-of burdens and duties which are assumed by the men in the management, duties which have never been performed before by the men on the management side. These new duties are divided into four large classes which have been, properly or improperly, called "The Four Principles of Scientific Management."

The first of these four great duties which are undertaken by the management is to deliberately gather in all of the rule-of-thumb knowledge which is possessed by all the twenty different kinds of tradesmen who are at work in the establishment, — knowledge which has never been recorded, which is in the heads, hands, and bodies, in the knack, skill, dexterity which these men possess — to gather that knowledge,

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classify it, tabulate it, and in most cases reduce it to laws and rules; in many cases, work out mathematical formulæ which, when applied with the coöperation of the management to the work of the men, will lead to an enormous increase of the output of the workmen. That is the first of the four great principles of Scientific Management, the development of a science to replace the old rule-of-thumb knowledge of the workmen.

The second of the new duties assumed by the management is the scientific selection and then the progressive development of the workmen. The workmen are studied; it may seem preposterous, but they are studied just as machines have been studied in the past and are being more than ever studied. In the past we have given a great deal of study to machines and little to workmen, but under Scientific Management the workman becomes the subject of far more careful and accurate study than was ever given to machines. After we have studied the workman, so that we know his possibilities, we then proceed, as one friend to another, to try to develop every workman in our employ, so as to bring out his best faculties and to train him to do a higher, more interesting and more profitable class of work than he has done in the past. This is the second of the principles of Scientific Management.

The third duty is to bring the scientifically selected workman and the science together. They must *be brought* together; they will not come together without it. I do not wish for an instant to have any one think I have a poor opinion of a workman; far from it. I am merely stating a fact when I say that you may put your scientific methods before a workman all you are a mind to, and nine times out of ten he will do the same old way. Unless some one brings the science and the workman together, the workman will slip back as sure as fate into the same old ways, and will not practise the better, the scientific, method. When I say, make the workman do his work in accordance with the laws of science, I do not say *make* in an arbitrary sense. If I did it would apply far more to the employing than to the working class, because in the work of changing from the old to the new system, nine-tenths of

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our troubles are concerned with those on the management side, and only one-tenth with the workmen. Those in the management are infinitely more stubborn, infinitely harder to make change their ways than are the workmen. So I want to qualify the word *make;* it has rather a hard sound. Some one must *inspire* the men to make the change, for it will not occur naturally. If you allow things to wait, it will not occur in ten years when it should occur in two months. Some one must take it in hand.

Sumber: Taylor, Frederick W. 1912: 32, 33 & 34. The Principle of Scientific Management. Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven. Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College. Gambar disajikan oleh Levri Ardiansyah (2017).

Prinsip pertama adalah penempatan kembali pengetahuan para pekerja (*replace the old rule-of-thumb knowledge of the workmen*) dengan cara (1) *to gather that knowledge;* (2) *classify it;* (3) *tabulate it;* dan (4) *reduce it to laws and rules.*
Prinsip kedua adalah seleksi ilmiah dan pengembangan para pekerja (*is the scientific selection and then the progressive development of the workmen*) dengan cara (1) mempelajari para pekerja untuk mengetahui kemungkinan pengembangan para pekerja; dan (2) *proceed as one friend to another* melalui pendidikan dan pelatihan untuk mendapatkan sikap para pekerja yang lebih menarik dan dapat menjadi kelas pekerja yang lebih menguntungkan (*more profitable class of work*).

Prinsip ketiga adalah '*to bring the scientifically selected workman and the science together*' yakni memadukan para pekerja yang telah terseleksi terhadap metode ilmiah, sehingga para pekerja dapat mengerjakan pekerjaannya selaras dengan *the laws of science* yang tercetak pada metode ilmiah. Dengan begini, para pekerja tidak akan kembali pada cara lama.

Prinsip keempat adalah membangun kerjasama antara para pekerja dengan manajemen, baik kerjasama diantara para pekerja maupun kerjasama antara para pekerja dengan manajer, sehingga dengan *scientific management,* para manajer dapat melayani para pekerja lebih dari pelayanan yang diberikan para pekerja kepada para manajer (*under Scientific Management the managers are more the*

servants of the men than the men are the servants of the managers). Untuk ini perlu dibangun *equal division of the work between the management and the men* (Taylor, Frederick W., (1912: 35). Tentang prinsip keempat ini dapat terbaca pada tulisan Taylor, Frederick W., (1912: 34) berjudul 'The Principle of Scientific Management' di buku berjudul '*Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven'* (Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College) yang tercetak:

The fourth principle of Scientific Management is a little more difficult than the others to make clear. It is almost impossible to explain to the average man what I mean by it, until he sees one of our companies organized under Scientific Management.

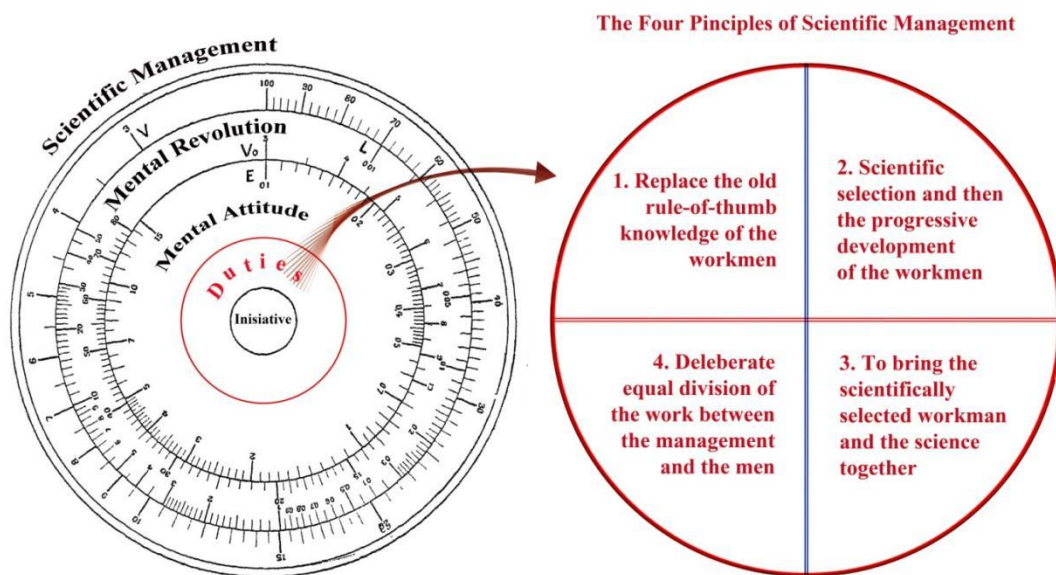
The fourth principle is a deliberate division of the work which was formerly done by the workmen into two sections, one of which is handed over to the management. An immense mass of new duties is thrown on the management which formerly belonged to the workmen. And it is this handing of duties which they never dreamed of assuming before over to those on the management side, requiring coöperation between the management and the workmen, which accounts more than anything else for the fact that there has never been a strike under Scientific Management. If you and I are doing a piece of work together, and realize that we are mutually dependent upon one another, it is impossible for us to quarrel. We may quarrel, perhaps, during the first few days. Some men find it difficult to coöperate. But when they once get to going and see that the prosperity of both sides depends on each man doing his share of the work, what is there to strike about? They realize they cannot strike against the friend who is helping them. That is what it is, a case of helpfulness. I think I can say truthfully that under Scientific Management the managers are more the servants of the men than the men are the servants of the managers. I think I can say that the sense of obligation is greater on the part of the management than on the part of the men. They

Sumber: Taylor, Frederick W. 1912: 34. The Principle of Scientific Management. Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven. Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College. Gambar disajikan oleh Levri Ardiansyah (2017).

Taylor lalu menulis simpulan tentang '*The Four Principles of Scientific Management*' seperti terbaca pada halaman 35 ini:

> Let me repeat briefly these four principles of Scientific Management. I want you to see these four principles plainly as the essence of the illustration I am going to give you of Scientific Management. They are the development of a science to replace the old rule-of-thumb methods; the scientific selection and then the progressive teaching and development of the workmen; the bringing of the scientifically selected workmen and the science together; and then this almost equal division of the work between the management and the men.

Sumber: Taylor, Frederick W. 1912: 35. The Principle of Scientific Management. Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven. Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College. Gambar disajikan oleh Levri Ardiansyah (2017).

Simpulan yang dapat saya rumuskan tergambar pada ilustrasi seperti ini:

Sumber: Karya ilustrasi Levri Ardiansyah (2017) berdasar tulisan Taylor, Frederick W. 1912: 32, 33, 34 & 35. The Principle of Scientific Management. Addresses and Discussions at the Conference on Scientific Management held October 12 . 13 . 14 Nineteen Hundred and Eleven. Hanover, USA: The Amos Tuck School of Administration and Finance Dartmouth College, memakai gambar lingkaran hitam pada buku karya Bricard, Georges., (1927: 90 & 91) berjudul 'L'Organisation scientifique du Travail' (Paris: Librairie Armand Colin), diolah.

Pada buku karya Bricard, Georges., (1927: 3) berjudul *'L'Organisation scientifique du Travail'* (Paris: Librairie Armand Colin) tercetak:

N° 84.

COLLECTION ARMAND COLIN
(Section du Génie Civil)

L'Organisation scientifique du Travail

par

GEORGES BRICARD
Ingénieur en chef du Génie Maritime

34 figures

LIBRAIRIE ARMAND COLIN
103, Boulevard Saint-Michel, PARIS
1927
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CHAPITRE PREMIER

PRINCIPES DU SYSTÈME TAYLOR

1. De tout temps, les hommes qui ont eu a diriger des ateliers ou des chantiers ont fait tous leurs efforts pour que les travaux fussent exécutés le plus économiquement possible. Il semblerait donc que, depuis longtemps, auraient dû être établies les lois générales de l'organisation du travail, surtout celles qui dépendent beaucoup plus de la psychologie que de la technique. Il n'en est rien cependant et, dans ces dernières années, nous avons vu ces lois se formuler en un nouveau corps de doctrine.

On peut admettre que cette création est presque entièrement l'œuvre de l'Américain Frédéric Winslow Taylor (1856-1915) qui y a consacré la majeure partie de son existence,en y apportant un esprit entièrement nouveau, dépouillé d'idées préconçues. Il a su, en outre, exprimer le résultat de ses travaux avec une force saisissante qui en a assuré la rapide diffusion. Actuellement « *Système Taylor* » est synonyme d'*Organisation scientifique du travail*. Pour exprimer que l'on a réorganisé une usine, une administration, ne serait-ce que celle d'une maison particulière, on dit souvent qu'on l'a *taylorisée*. Bien que cette évocation du nom de Taylor soit parfois un peu abusive, il est certain que ses principes ont un

Sumber: Bricard, Georges. 1927: 3. L'Organisation scientifique du Travail. Paris: Librairie Armand Colin. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Bricard, Georges., (1927: 74 & 75) berjudul *'L'Organisation scientifique du Travail'* (Paris: Librairie Armand Colin) tercetak:

14. Angles de coupe. — Quand un outil attaque une surface de métal on distingue (figure 9) l'angle de dépouille α et l'angle d'attaque β que font les faces inférieure et supérieure du tranchant avec le plan tangent à la surface du métal attaqué. L'étude du mécanisme de la coupe des métaux faite par Taylor a montré que dans le fonctionnement le copeau n'était en contact avec l'outil qu'un peu en arrière du tranchant et que par suite l'acuité de l'arête taillante n'avait pas grande importance une fois l'outil engagé. L'usure est due à l'échauffement produit par le frottement du copeau sur la surface supérieure de l'outil. On doit donc chercher

à réduire ce frottement et à faciliter le dégagement de la chaleur produite pour en atténuer les effets.

On diminue le frottement en réduisant l'angle d'attaque β, ce qui, pour une dépouille donnée, conduit à réduire l'angle β — α du tranchant. Mais à mesure que cet angle diminue, la chaleur dégagée par le frottement trouve une moindre section de métal qui la conduise dans le corps de l'outil où elle se dissipe. Il y a donc une valeur optimum de l'angle du tranchant. Plus aigu, le tranchant est trop fragile ; plus obtus, il offre une résistance exagérée à la pénétration.

L'angle d'attaque le plus favorable varie selon la
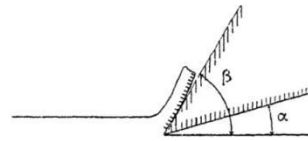
Fig 9
ANGLES DE COUPE.

matière à travailler ; par exemple, il sera voisin de 90° pour une matière très dure (fonte coulée en coquille) et de 61° pour une matière relativement molle comme l'acier extra-doux.

Les expériences de Taylor ont d'ailleurs montré que cet élément était un des moins importants du problème.

La dépouille doit être juste suffisante pour que l'outil ne vienne pas s'appuyer par la face qui est en regard de la pièce et exercer un frottement nuisible. Quand cet inconvénient se produit, on dit que l'outil « talonne » (fig. 10).

L'angle de dépouille sera donc d'autant plus petit que l'on sera plus assuré de placer l'outil dans la machine

Sumber: Bricard, Georges. 1927: 74 & 75. L'Organisation scientifique du Travail. Paris: Librairie Armand Colin. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Bricard, Georges., (1927: 3) berjudul '*L'Organisation scientifique du Travail'* (Paris: Librairie Armand Colin) tercetak:

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CHAPITRE PREMIER

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On peut admettre que cette création est presque entièrement l'œuvre de l'Américain Frédéric Winslow Taylor (1856-1915) qui y a consacré la majeure partie de son existence, en y apportant un esprit entièrement nouveau, dépouillé d'idées préconçues. Il a su, en outre, exprimer le résultat de ses travaux avec une force saisissante qui en a assuré la rapide diffusion. Actuellement « *Système Taylor* » est synonyme d'*Organisation scientifique du travail*. Pour exprimer que l'on a réorganisé une usine, une administration, ne serait-ce que celle d'une maison particulière, on dit souvent qu'on l'a *taylorisée*. Bien que cette évocation du nom de Taylor soit parfois un peu abusive, il est certain que ses principes ont un

Sumber: Bricard, Georges. 1927: 3. L'Organisation scientifique du Travail. Paris: Librairie Armand Colin. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Bricard, Georges., (1927: 76 & 77) berjudul *'L'Organisation scientifique du Travail'* (Paris: Librairie Armand Colin) tercetak:

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avec une précision telle qu'il ne puisse subir la petite rotation autour d'un axe parallèle au tranchant qui le ferait talonner. Sur les tours et les raboteuses où l'outil repose sur des cales d'épaisseur plus ou moins régulières, on emploie des dépouilles relativement fortes, de l'ordre de 6°. Avec les fraises qui sont montées avec beaucoup plus de précision, on pourra se contenter d'une dépouille d'un degré.

Une dépouille forte affaiblit le tranchant sans diminuer la pression du copeau.
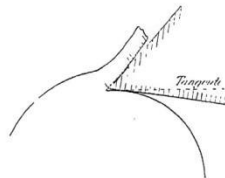
FIG. 10.
OUTIL TALONNANT.

Pour un outil de tour à tranchant courbe, on obtient la dépouille voulue en engendrant la surface latérale de l'outil par des droites faisant avec la surface d'application sur le chariot du tour un angle constant égal au complément de la dépouille. Si par exemple le contour du tranchant est circulaire, la surface latérale de l'outil sera un cône à axe vertical, de demi-angle au sommet égal à la dépouille.

Le dessus de l'outil est dressé suivant un plan oblique qui coupe ce cône suivant une ellipse. On voit que l'angle du tranchant est variable suivant les points de l'arête.

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Pour déterminer facilement le plan de dessus de l'outil on donne généralement les angles que font avec ce plan une perpendiculaire à la pièce (ou un rayon dans le cas d'un outil de tour) et une parallèle à la pièce, perpendi-
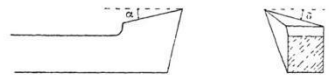
FIG. 11.
ANGLES DE DÉGAGEMENT.

culaire au déplacement relatif de l'outil et de la pièce. L'angle α de la figure 11 est le dégagement interne et l'angle δ le dégagement latéral. Les valeurs de 8° et 22° par exemple qui correspondent à un angle d'attaque minimum de 68° environ conviennent au travail de l'acier doux.

15. Effet de l'arrosage. — Taylor a mis en évidence l'avantage que l'on trouve à refroidir énergiquement l'outil par un courant d'eau. Pour éviter les éclaboussures et néanmoins assurer un débit suffisant, l'eau doit être amenée sous faible pression par un tuyau de large section dont le jet est dirigé sur le copeau, au point où il se détache de la pièce. On obtient ainsi un résultat meilleur que si on envoie par dessous le jet refroidir le tranchant de l'outil ainsi que Taylor l'avait essayé tout d'abord.

Avec l'acier un arrosage parfait augmente de 30 à 40 % la durée de travail d'un outil dans des conditions déterminées par rapport à la valeur qu'elle aurait si l'outil travaillait à sec. Avec la fonte, pour laquelle, avant Taylor, on considérait l'arrosage comme superflu, le gain de durée est d'environ 16 %.

Sumber: Bricard, Georges. 1927: 76 & 77. L'Organisation scientifique du Travail. Paris: Librairie Armand Colin. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Bricard, Georges., (1927: 79) berjudul *'L'Organisation scientifique du Travail'* (Paris: Librairie Armand Colin) tercetak:

TEMPS ET PROCÉDÉS DE TRAVAIL 79

rendement des transmissions du tour, donne la puissance qui doit être transmise par la poulie.

Taylor a reconnu que la pression du copeau était sensiblement indépendante de la vitesse de coupe.

Elle dépend naturellement de la nature du métal travaillé ; mais elle est fonction de l'ensemble des qualités du métal ; un acier dur, mais ayant un faible allongement à la rupture, offre moins de résistance qu'un acier plus mou, mais susceptible d'un grand allongement. Le métal résiste d'autant plus à l'outil que sa qualité est plus fine, c'est-à-dire par exemple que le total R + A (R charge à la rupture, A allongement à la rupture) est plus élevé. La forme précise de cette fonction n'a d'ailleurs pu être découverte par Taylor.

Pour le travail de la fonte Taylor donne les chiffres suivants pour la pression P (en kg.) exercée par le copeau sur un outil, quand le serrage est S (en mm.), l'avance a (en mm.) :

$$P = C\,S^{\frac{14}{15}}\,a^{\frac{3}{4}}$$

Avec les valeurs suivantes de C,

Fonte douce...	880
Fonte dure ...	1 350.

Pour l'acier doux, il donne avec les mêmes notations :

$$P = 201\,S^{\frac{14}{15}}\,a.$$

Sumber: Bricard, Georges. 1927: 79. L'Organisation scientifique du Travail. Paris: Librairie Armand Colin. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Bricard, Georges., (1927: 90 & 91) berjudul *'L'Organisation scientifique du Travail'* (Paris: Librairie Armand Colin) tercetak:

90 ORGANISATION SCIENTIFIQUE DU TRAVAIL

Le résultat essentiel des expériences du Commandant Denis est le suivant : si au lieu d'avoir affaire aux conditions spéciales de travail du tour d'essai Herbert, on a
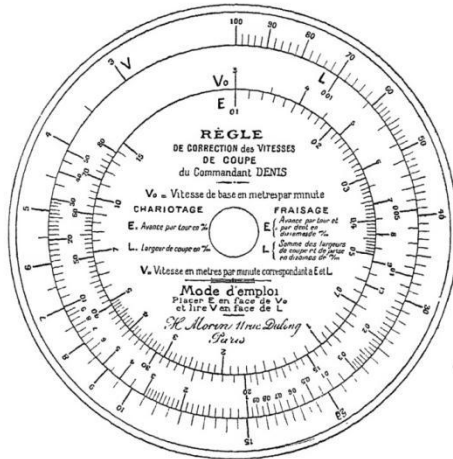
FIG. 15.
RÈGLE DU C^t DENIS (Cliché H. Morin).

un outil de forme ordinaire travaillant sur un métal différent avec un serrage et une avance différents, on peut régler la vitesse de coupe à diverses valeurs et tracer une courbe donnant la production totale de l'outil

TEMPS ET PROCÉDÉS DE TRAVAIL 91

en fonction de la vitesse de coupe. Or, cette courbe ne diffère de la courbe relevée sur le tour Herbert que par un simple changement des échelles.

De cette observation on tire les conclusions suivantes :

TABLEAU DES VITESSES
de moindre usure V_0 en metres par minute pour les conditions de coupe-types
(Chariotage a sec fraisage lubrefié)

MATIERES USINEES	Aciers au carbone et aciers speciaux		Forme generale des courbes de debit	Aciers rapides ordinaires		Aciers rapides superieurs	
	Ch	Fr		Ch	Fr	Ch	Fr
LAITON de decoll^e	22	20	Courbe N°1	52	24	62	30
BRONZE 90/10	19	19		45	22	54	28
d° 88/12	17	18		39	20	47	25
BRONZE DUR	15	17		34	19	41	23
FONTE GRISE	13	16		30	17	36	21
ACIER A 30 K^g	13	16		30	17	36	21
d° 40 K^g	11	14		26	15	31	19
d° 50 K^g	9	13		22	14	26	18
d° 60 K^g	7	12		18	13	22	16
d° 70 K^g	6	11	Courbe N°2	15	12	18	15
d° 80 K^g	4,5	10		12	11	14	13
d° 90 K^g	3	9,5		9	10,5	11	12
d° 100 K^g	2	9		6	10	8	11
FONTE ACIEREE	1,5	8,5		5	9,5	6,5	10,5
ACIER A 110 K^g OU ACIER NI A 25%	1	8		4	9	5	10

Conditions de coupe-types: Chariotage { Avance par tour 0^m,5 ; Largeur de coupe 5^m } Fraisage { Avance par tour et par dent 0^m,05 ; Somme des largeurs de coupe et de passe 50^m }

Travaux avec lubrification abondante sans pression { Augmenter V_0 de moitie (Chariotage) ; d° du quart (Fraisage) }

Travaux de fraisage a sec { Reduire V_0 aux $\frac{2}{3}$ de sa valeur }

Courbe N°1: V_0 = Vitesse de moindre usure en metres par minute ; $V_e = \frac{3}{2} V_0$ = Vitesse economique pratique — d° — ; $V_1 = \frac{5}{3} V_0$ = Vitesse de coupe limite pratique — d° —

Courbe N°2: V_0 = Vitesse de moindre usure en metres par minute ; $V_e = \frac{3}{2} V_0$ = Vitesse economique pratique — d° — ; $2 V_0$ = Vitesse de coupe limite pratique — d° —

FIG. 15 *bis*.
TABLEAU DES VITESSES DE MOINDRE USURE (Cliché H. Morin)

Pour une passe de serrage et d'avance donnés dans une pièce déterminée, il y a une vitesse de coupe de moindre usure V_0, une vitesse limite V_1 et une vitesse

Sumber: Bricard, Georges. 1927: 90 & 91. L'Organisation scientifique du Travail. Paris: Librairie Armand Colin. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Bricard, Georges., (1927: 130) berjudul *'L'Organisation scientifique du Travail'* (Paris: Librairie Armand Colin) tercetak:

13. — La Direction des Constructions Navales d'un de nos grands ports de guerre dont les services de comptabilité ont été récemment renouvelés d'une manière
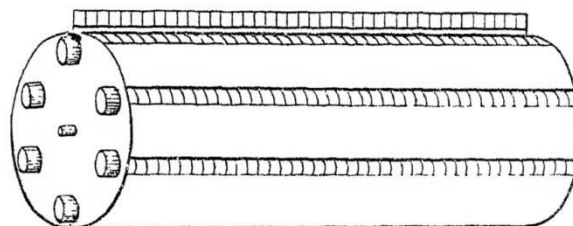
FIG. 24.
BARÈME ROTATIF.

complète en s'inspirant des théories les plus modernes sur l'organisation du travail, a étudié tout particulièrement les moyens d'abréger autant que possible la durée des calculs.

Sumber: Bricard, Georges. 1927: 130. L'Organisation scientifique du Travail. Paris: Librairie Armand Colin. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Bricard, Georges., (1927: 134 & 135) berjudul '*L'Organisation scientifique du Travail'* (Paris: Librairie Armand Colin) tercetak:

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— L'indication par un seul chiffre conventionnel de l'unité servant à mesurer la matière (mètre, kilogramme, nombre, douzaine, etc.).
— Le prix de l'unité précédente.
— Le nombre d'unités délivrées ou versées en magasin.
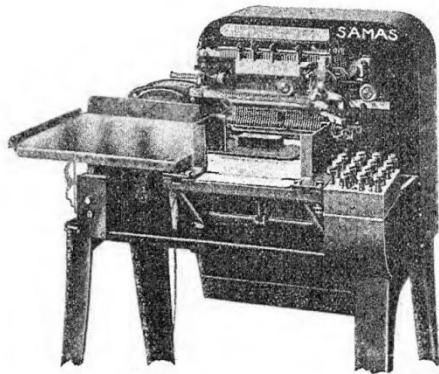
Fig. 26.
Poinçonneuse.

APPLICATION A DIVERSES INDUSTRIES 135

moyen de la machine représentée figure 26 (1). L'opérateur, en appuyant successivement sur les touches du clavier, prépare automatiquement les poinçons que com-
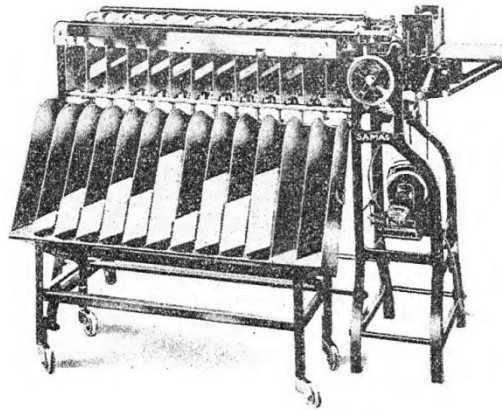
Fig. 27.
Trieuse.

Sumber: Bricard, Georges. 1927: 134 & 135. L'Organisation scientifique du Travail. Paris: Librairie Armand Colin. Gambar disajikan oleh Levri Ardiansyah (2017).

Taylor, from a Machinist

Pada buku karya Drury, Horace Bookwalter., (1918: 23) berjudul '*Scientific Management a History and Criticism. Second Edition. Revised'* (New York: Colombia University. London: P.S. King & Son, Ltd.) tercetak '*Taylor, who had been a machinist and then a gang boss in the employ of the Midvale Steel Company of Philadelphia, was promoted in 1882 to the position of machine shop foreman'*. Kutipannya tergambar seperti ini:

297] *MEANING OF SCIENTIFIC MANAGEMENT* 23

2. THE MOVEMENT BRIEFLY DESCRIBED

The roots of scientific management are to be found in the life and thought of the late Dr. Frederick W. Taylor. Taylor, who had been a machinist and then a gang boss in the employ of the Midvale Steel Company of Philadelphia, was promoted in 1882 to the position of machine shop foreman. During his experience as a workman, Taylor had been constantly impressed by the failure of his neighbors to produce more than about one-third of a good day's work. Wages in the Midvale shop were on a piece work basis, and the men were afraid to let the management guess how large a product they could really turn out because it might mean a cut. This tendency on the part of the workmen had resulted in a war between Taylor, the gang boss, who was trying to induce the men to work faster, and the workmen under him, who were determined that by fair means or foul they would avoid working faster. As a result of this struggle, life to Taylor had become hardly worth living. Accordingly, shortly after he was given the greater authority of foreman, he determined to work out some system of management by which the interests of the workmen and of the management would be made the same.

Sumber: Drury, Horace Bookwalter. 1918: 23. Scientific Management a History and Criticism. Second Edition. Revised. New York: Colombia University. London: P.S. King & Son, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Drury, Horace Bookwalter., (1918: 98 & 99) berjudul '*Scientific Management a History and Criticism. Second Edition. Revised'* (New York: Colombia University. London: P.S. King & Son, Ltd.) tercetak:

CHAPTER IV

LIVES OF THE LEADERS

INCLUDING CERTAIN CONTRIBUTIONS TO THE ENRICHMENT OF SCIENTIFIC MANAGEMENT

I. FREDERICK WINSLOW TAYLOR

So much has already been said in regard to the founder of scientific management that we will here content ourselves with presenting little more than a summary of his life. Frederick Winslow, son of Franklin and Emily (Winslow) Taylor, was born March 20, 1856, at Germantown, Philadelphia. He received part of his primary education in France, Germany, and Italy,[1] and was prepared for Harvard at Philips Exeter Academy (where his instructor in mathematics was George A. Wentworth, the author of many well-known textbooks). Impaired eyesight, however, changed his educational plans, and during four years of his youth he served apprenticeships as a pattern maker and as a machinist, in a small pump works at Philadelphia.

When, at the age of 22, he was ready to practice his trade, the depression still lingering from the panic of 1873 compelled him to start as a laborer. Thus was begun an eleven year's employment in the works of the Midvale Steel Company, during which Taylor was rapidly promoted. From 1878 to 1880 he served as laborer, clerk,

[1] He was abroad for three years and a half, and attended schools in Paris, Berlin, Stuttgart, and Italy.

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and (for about two months) journeyman machinist; from 1880 to 1882 as gang boss; from 1882 until the time of his leaving in 1889, as foreman, chief draughtsman, and finally (having taken the degree of Mechanical Engineer from the Stevens Institute of Technology in 1883), as chief engineer. It was when Taylor became gang boss in 1880 that he first determined to discover, by scientific methods, how long it should take men to perform each given piece of work; and it was in the fall of 1882, shortly after he had been elevated to the position of foreman, that he started to put the first features of scientific management into operation.

In 1889 Mr. Taylor decided to apply his ideas in a wider field. For three years he served a corporation operating large pulp mills in Maine, and then attempted in various parts of the country a reorganization of industrial plants. This involved a variety of manufacturing, structural, and engineering work; but his most celebrated undertakings were in connection with the plant of the Bethlehem Steel Company between 1898 and 1901. In 1901, Mr. Taylor's possession of a fortune enabled him to retire from work for pay;[1] but it was only to give himself more completely to the cause of scientific management. Thus he testified[2] that, since 1901, in giving assistance to friends who desired to improve their own or the plants of others, he had " spent more than one-third " of his income, and given his " whole personal time "— this without any money compensation, direct or remote. Especially as adviser of and owner of a small interest in the Tabor Manufacturing Company, and as a consultant for the Link-Belt Company, has he

[1] *Hearings before Special Committee of the House of Representatives to Investigate the Taylor and Other Systems of Shop Management*, p. 1507.

[2] *Ibid.*, p. 1490.

Sumber: Drury, Horace Bookwalter. 1918: 98 & 99. Scientific Management a History and Criticism. Second Edition. Revised. New York: Colombia University. London: P.S. King & Son, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Drury, Horace Bookwalter., (1918: 100 & 101) berjudul '*Scientific Management a History and Criticism. Second Edition. Revised'* (New York: Colombia University. London: P.S. King & Son, Ltd.) tercetak:

100 SCIENTIFIC MANAGEMENT [374

had a hand in the creation of what is regarded as the highest development of scientific management.

Mr. Taylor has taken out about one hundred patents, his greatest invention being the discovery between 1898 and 1900, jointly with Mr. Maunsel White, of the Taylor-White process of treating tungsten steel. This invention, according to the highest authorities, has revolutionized the machine shops of the world, enabling tools to cut metal at least three times as rapidly as before. The inventors received $100,000 for the English patents alone. Fame again came to Mr. Taylor upon his publication, in 1906, of the results of the extended researches of himself and others in the art of cutting metals [1]—a work of genuine scientific character, and of the highest practical importance. Mr. Taylor, however, regarded as of far greater moment than all this other work his share in the discovery of the principles of scientific management.

Among the honors which have been conferred upon Taylor are a gold medal from the Paris Exposition of 1900, the presidency of the American Society of Mechanical Engineers during 1906, and the degree of Doctor of Science from the University of Pennsylvania, also in 1906.[2] In January, 1912, he stated that he was then receiving, from all parts of the country, invitations to make addresses at the rate of one a day. His *Principles of Scientific Management* has been translated into French, German, Dutch, Danish, Swedish, Lettisch, Italian, Chinese, Japanese, and Mexican; his "Shop Management" into French, German, Dutch, and Russian.

Mr. Taylor died March 21, 1915, just after passing his

[1] "On the Art of Cutting Metals," in *Transactions of the American Society of Mechanical Engineers*, vol. xxviii.

[2] He received the degree of doctor of laws from Hobart College, in 1912.

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fifty-ninth birthday. The physical fitness that once won him a national tennis championship, and the mental stamina and bulldog tenacity with which he always held to an idea which he had decided to pursue, were mellowed and broadened with the passing years into those genial qualities of host and friend that made the Taylor home at Chestnut Hill, Philadelphia, a delightful Mecca for those interested in scientific management, and Mr. Taylor himself the elder among a group of loyal followers.[1] His death was felt as a personal bereavement by a large circle of friends as well as a great loss to the cause which he so ably and so unselfishly served.[2]

[1] Many who recognize the bigness of Taylor's service view unfavorably some aspects of his methods. They complain that he would not relax at all from one original plan, but insisted that a shop be reorganized in every detail according to a prolonged and complicated program. Furthermore, the thoroughness of his reform had to include the timing of operations in units much more refined than most other efficiency men attempt. For these reasons, and because he retired from regular practice as early as 1901, critics and even friends insist that Taylor has himself accomplished far less than various followers who have caught his spirit but revised his methods. This assertion, however, they rarely intend as a reflection on Taylor's leadership, as many efficiency engineers only remotely connected with the Taylor following are ready to admit that, if it had not been for Taylor's example, they would probably not be found in their present line of work.

[2] Among Mr. Taylor's chief writings may be enumerated the following papers read before the American Society of Mechanical Engineers: "A Piece-Rate System" (1895); "Shop Management" (1903); "On the Art of Cutting Metals" (1906). With S. E. Thompson, he has written *Concrete, Plain and Reinforced* (1905), and *Concrete Costs* (1911). His philosophy is, however, best expressed in *The Principles of Scientific Management* (1911). His system is also explained in contributions to the periodicals; in numerous addresses; in testimony before the special House committee which investigated scientific management (1911-12); and in testimony before the Industrial Relations Commission (April, 1914).

Sumber: Drury, Horace Bookwalter. 1918: 100 & 101. Scientific Management a History and Criticism. Second Edition. Revised. New York: Colombia University. London: P.S. King & Son, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Sumber: https://wikipedia.org. 18 Desember 2015. Judul: Midvale Steel Works Areal View, 1879.

50 FREDERICK W. TAYLOR

been "put over on" Schmidt. Friends of labor declared their indignation that Taylor should speak of any workman as stupid and ox-like. One of the more temperate of the letters came from a young Socialist named Upton Sinclair. If we here print Mr. Sinclair's letter, it is simply because Taylor considered it wise to reply to it as fairly representative. Addressing the editor of *The American Magazine* under date of February 24, 1911, Mr. Sinclair said:

> I have been reading with a great deal of interest the first installment of Mr. Frederick W. Taylor's account of "Scientific Management." He tells how workingmen were loading twelve and a half tons of pig iron and he induced them to load forty-seven tons instead. They had formerly been getting $1.15; he paid them $1.85. Thus it appears that he gave about 61% increase in wages, and got 362% increase in work. I shall not soon forget the picture which he gave us of the poor old laborer who was trying to build his pitiful little home after hours, and who was induced to give 362% more work for 61% more pay. I wonder how Mr. Taylor and his colleagues arrive at the latter figure. He tells us just how by scientific figuring he learned that the man could lift 47 pounds of pig iron, but he does not tell us by what scientific figures he arrived at the conclusion that he should receive $1.85 for the work, instead of, let us say, $2.85. Can it by any chance be that he figured upon this basis? — The workingmen for the steel plant are at present producing $1,000 worth of value and getting $168.00; therefore, if we can induce them to produce 362% more, they would then receive 16.8% of the additional increase. I believe that those members of the working-class who read the American Magazine would be interested to know just what proportion they get of the value they produce under the old system, and what proportion they are to get under the new "scientific" system.
>
> Also, I want to put a few more questions in elementary political economy to Mr. Taylor. He tells us we have no need to worry because seven men out of eight are turned out of their jobs by the new system, because there are plenty of jobs for them in other parts of the plant.

24 Februari 1911, tulisan yang dikirim Taylor berjudul "Scientific Management" diterima oleh The American Magazine.

Tahun 1914
Lioner S. Marks, Profesor Teknik Mesin dari Harvard University menulis artikel yang juga berjudul "Scientific Management" sebagai tangapan atas tulisan Taylor

CHAPTER III

BARTH DEVISES HIS SLIDE RULE

WRITING to General William Crozier in 1909, Taylor referring to Carl Barth, said: "He is one of the most brilliant minds I have ever met." And in a letter addressed in 1914 to Lionel S. Marks, professor of mechanical engineering at Harvard, who had just written an article on Scientific Management, Taylor said: "In your text I do not think you give Mr. Carl G. Barth the credit which belongs to him. He is certainly foremost among those who are interested in and are installing scientific management, and a more honest, straightforward and accomplished man never lived."

His full name is Carl Georg Lange Barth. He was born in Norway in 1860, and thus was four years younger than Taylor. His body is both short and slender. With his glasses and close-cut beard, he has a severe, professorial look. Norway is not a smiling land. But when Carl Barth gets excited, as he does readily, and the lock of hair on an otherwise bald forehead sticks up straight like the horn of a satyr, then there is a look of devilish animation about the little man that fully compensates for the absence of smiles.

How embarrassing it would be, it has been suggested, if the faculty of telepathy were so developed in us that the inmost mind of each would stand naked to all. Such a thing hardly would embarrass Carl Barth. As it is now, whatever is in his mind comes out. If it comes out in the manner of an *enfant terrible*, the embarrassment is all yours. His is the honesty and fearlessness of the elements. For all his mathematical

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Sumber: www.ForgottenBooks.org. 2013. Frederick W. Taylor: Father of Scientific Management (1923). Gambar dibuat oleh Levri Ardiansyah (2016).

The Principles of Scientific Management

BY

FREDERICK WINSLOW TAYLOR, M.E., Sc.D.

PAST PRESIDENT OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

HARPER & BROTHERS PUBLISHERS

NEW YORK AND LONDON

1919

Shop Management

BY

FREDERICK WINSLOW TAYLOR, M.E., Sc.D.

PAST PRESIDENT OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

WITH AN INTRODUCTION BY

HENRY rR. TOWNE

LATE PRESIDENT OF THE YALE & TOWNE MFG.CO

HARPER & BROTHERS PUBLISHERS

NEW YORK AND LONDON

COPYRIGHT, 1911

BY FREDERICK W. TAYLOR

Sumber: http://books.google.com/ (diolah oleh Levri Ardiansyah).

Sumber : Taylor, F W. 1947. Scientific Management: Comprising Shop Management, The Principles of Scientific Management, Testimony Before the Special House Committee. Harper & Brothers Pubishers (diolah oleh Levri Ardiansyah).

Professor Smith
first mentioned the subject lecturers
on "Work Administration"
or to use a more familiar term,
SHOP MANAGEMENT, ...

WORKS ADMINISTRATION.

Lectures before the Students of the Leland Stanford Junior University, Palo Alto, California.

BY J. RICHARDS.

No. 1. October 17th, 1895.

When Professor Smith first mentioned the subject of lectures on "Works Administration," or to use a more familiar term, shop management, the impression was that such a theme could not be treated so as to have interest separately from the regular studies you are pursuing here, but on more reflection it occurred to me, as it had undoubtedly done to Professor Smith, that while it was a part and parcel of technical education it was in the main separate and unteachable by the usual methods, and that something could be done in the way of relating observations and experience gathered in the practical conduct of works.

Your studies, such as this institution is to promote, must of necessity relate to particular methods and exact treatment, must come within the domain of computable quantities, and be governed by rules that are constant, or nearly so, while the management or administration of works must be empirically learned by observation, inference and analogy, not from one alone, but from many persons and in many places.

This being the case, so much as can be presented here in the form of lectures must be the result of experience and observation, and accepted as such. It is true that one may by logical inference

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The Father of Scientific Management

Frederick W. Taylor

FATHER OF SCIENTIFIC MANAGEMENT

BY

FRANK BARKLEY COPLEY

IN TWO VOLUMES

VOLUME II

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HARPER AND BROTHERS, PUBLISHERS

NEW YORK AND LONDON

MCMXXIII

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BOOK V—THE GREAT ADVENTURE AT BETHLEHEM

BOOK VI—SERVING THE PUBLIC WITHOUT PAY

BOOK VII—IN CONCLUSION

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Sumber: www.ForgottenBooks.org. 2013. Gambar dibuat oleh Levri Ardiansyah (2016).

Taylor saat bekerja di Bethlehem Steel Company

A GROUP OF BETHLEHEM STEEL COMPANY EXECUTIVES

Taylor stands behind the third man seated, from the reader's left. About 1900

Sumber: www.ForgottenBooks.org. 2013. Frederick W Taylor: Father of Scientific Management.

p. 85

Taylor was profound, revolutionary;
Gantt adaptable, opportunist.
It is true that Taylor felt that Gantt
never fully grasped the underlying
philosophy of Scientific Management,

Sumber Gambar: https://en.wikipedia.org. 2016.
Gambar diolah oleh Levri Ardiansyah (2016)

THE OPPOSING GROUPS 23

Early in 1899 he again reached out for Henry L. Gantt, and induced him to come to Bethlehem mainly to assist Davenport in introducing piece work. It must be considered unfortunate that there have been people who praised Gantt at the expense of his former chief. The fact would appear to be that such difference of temperament as there was between Gantt and Taylor was creditable to each. If Taylor's slogan was "no responsibility without authority," Gantt told you that as a consulting engineer he wanted neither responsibility nor authority; it was his method to have you come to him that he simply might advise you what to do. It was Taylor's instinct to say, "What ought we to have?" It was Gantt's instinct to say, "What can we do with what we have?" Taylor was thoroughgoing; Gantt did not wish to go any farther than you were willing to have him. Taylor was profound, revolutionary; Gantt adaptable, opportunist. It is true that Taylor felt that Gantt never fully grasped the underlying philosophy of Scientific Management, and that before Taylor's death he and Gantt had largely got out of sympathy with each other as regards various details pertaining to the practice of their profession; but this does not alter the fact that each continued to have for the other a lively regard and respect. It is certain that at Bethlehem, as elsewhere, Gantt's ready ability to make the best of whatever situation arose was of great service in supplementing Taylor's bulldog ability to cling to whatever he undertook until he got there or something broke.

But now, at Bethlehem, Taylor again was confronted by the problem of taking the metal-cutting laws he had discovered and embodying them in a form so simple that these laws could be practically taken advantage of by the every-day working mechanic. This was the end to which all of his metal-cutting investigations were directed. Until there had been found some ready and practical means of determining

The Opposing Group

Frederick W. Taylor
Father of Scientific Management
1923:397

TAYLOR INSPECTING CONCRETE WORK

Sumber Gambar: www.ForgottenBooks.2013. Frederick W. Taylor: Father of Scientific Management (1923:397). Gambar diolah oleh Levri Ardiansyah (2016).

Papers on the Science of Administration

Pada *Papers on the Science of Administration*, ditutup oleh Luther Gulick dengan tulisan tentang *the science of administration* yang berjudul '*Science, Values and Public Administration*'. Agar dapat terbaca utuh, cetakan tulisan Luther Gulick ini saya sajikan utuh berupa beberapa gambar ini:

XI

SCIENCE, VALUES AND PUBLIC ADMINISTRATION

By

LUTHER GULICK

Administration has to do with getting things done; with the accomplishment of defined objectives. The science of administration is thus the system of knowledge whereby men may understand relationships, predict results, and influence outcomes in any situation where men are organized at work together for a common purpose. Public administration is that part of the science of administration which has to do with government, and thus concerns itself primarily with the executive branch, where the work of government is done, though there are obviously administrative problems also in connection with the legislative and the judicial branches. Public administration is thus a division of political science, and one of the social sciences.

At the present time administration is more an art than a science; in fact there are those who assert dogmatically that it can never be anything else. They draw no hope from the fact that metallurgy, for example, was completely an art several centuries before it became primarily a science and commenced its great forward strides after generations of intermittent advance and decline.

It is fashionable for physicists, chemists and biologists who have achieved remarkable control and great predictive accuracy in narrow areas to ridicule all the social scientists, particularly those in government, because of the small body of verified knowledge thus far accumulated and "laws" formulated outside of the field of the "exact sciences." It is even denied that there can be any "science" in social affairs. This naïve attitude is perhaps not to be wondered at in a group which has so recently arrived on the scene of man's intellectual theatre and has been permitted to play such a striking rôle for the past two centuries. Natural science, after all, has undertaken the comparatively simple and easy task of understanding the mechanistic and mathematical relationships of the physical world and has left to philosophy, ethics, religion, education, sociology, political science, and other social sciences the truly difficult and the truly important aspects of life and knowledge.

Social science rests at many points upon the physical sciences. Economics and politics, for example, are fundamentally conditioned by the discoveries of pure science and their technological application. The advance of certain of the exact sciences thus becomes of great concern and serves to condition and delay the advance of social science. The very fact that exact science has made a great forward surge in the past one hundred years, inevitably thrusts a whole new series of unsolved problems upon social science.

The social sciences are also mutually dependent. This is particularly true of political science because political science is not a unitary, but a co-ordinating science which deals on one side with man's political life, desires and behavior, and on the other with government and public administration in which must be utilized most if not all of the professions and sciences which man has developed.

The basic difference between the exact sciences and the social sciences, it has often been said, is that the social sciences must deal with values and ends. It is this which places them in a different category from the mechanistic sciences. It seems to the

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writer, however, that the importance of this element may be overemphasized, and that such overemphasis is certain to discourage the advance of social science as much as any other single factor. In many of the subsidiary but fundamental fields of social knowledge it is possible to put values and ends to one side, or to assume them as constants, just as is done in the pure sciences. For example, Gresham's law with regard to dear currency and cheap currency has validity entirely outside of any notion of what is "good" or "bad." Similarly Thorndike's studies in the age of learning, Boas' investigation of skulls and culture, Huntington's weather records, Buck's examination of public budget systems, Hurd's study of the movement of land values, King's analysis of income distribution, Mitchell's investigations of the price cycle do not depend for their validity upon the "good" or the "bad." Value finds its place in these studies not in the statement of variations and interrelationships, but in the social appraisal and application of the principles deduced. This does not mean that the social scientist will not be led on in his quest for truth by his individual value-interests, but it does mean that the results of his work, if scientifically done, may be used by others who have entirely different values in view. It would hardly be claimed that the structure of American democracy profited more from the thinking of the democrat Jackson than from that of the aristocrat Hamilton; nor that the concept of public and private law devised for the Roman Empire is of no value for a soviet republic.

It thus behooves the student of administration, along with other students of social science, to acquire the habit of separating (a) relationships and (b) value judgments as far as is possible in his work. In scientific literature, at least, he should endeavor to say: "Under conditions x, y and z conduct A will produce B; and conduct A^1 will produce C." He may have discovered this because he feels that B is desirable and C is undesirable, but if another student, or a statesman, confronts the same problem he may none the less be able to build upon and make use of the scientific work of the first student even though he has a reversed scale of values. Whenever a student of government says: "The mayor should now do A," this is to be interpreted:

1. Present conditions are xyz
2. Under conditions xyz, A gives B
3. B is good, therefore
4. Do A

If political scientists will make it a habit to split up every important "should" sentence in this way, they will not only make more useful to others the ideas which they develop, but may also introduce into their own work a new element of scientific validity. In other words, "should" is a word political scientists should not use in scientific discussion!

In the science of administration, whether public or private, the basic "good" is efficiency. The fundamental objective of the science of administration is the accomplishment of the work in hand with the least expenditure of man-power and materials. Efficiency is thus axiom number one in the value scale of administration. This brings administration into apparent conflict with certain elements of the value scale of politics, whether we use that term in its scientific or in its popular sense.* But both public

* See Frank W. Goodnow "Politics and Administration"; also "Politics and Administration" by the author in the Annals, September, 1933.

Sumber: Gulick, Luther. 1937. Science, Values and Public Administration. Edited by Gulick, Luther and Urwick, L. 1937: 191 & 192. Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University.Gambar disajikan oleh Levri Ardiansyah (2017).

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administration and politics are branches of political science, so that we are in the end compelled to mitigate the pure concept of efficiency in the light of the value scale of politics and the social order. There are, for example, highly inefficient arrangements like citizen boards and small local governments which *may* be necessary in a democracy as educational devices. It has been argued also that the spoils system, which destroys efficiency in administration, is needed to maintain the political party, that the political party is needed to maintain the structure of government, and that without the structure of government, administration itself will disappear. While this chain of causation has been disproved under certain conditions, it none the less illustrates the point that the principles of politics may seriously affect efficiency. Similarly in private business it is often true that the necessity for immediate profits growing from the system of private ownership may seriously interfere with the achievement of efficiency in practice. It does not seem to the writer, however, that these interferences with efficiency in any way eliminate efficiency as the fundamental value upon which the science of administration may be erected. They serve to condition and to complicate, but not to change the single ultimate test of value in administration.

In other words, the student of administration must take into account the conditions under which a given group of men are brought together to do a job. These conditions may include not only physical obstacles but also the democratic dogma, the fascist structure, a socialist economy, or the spoils system. But in any case the student of administration will not only explore relationships from the standpoint of efficiency within the framework afforded, but will consider also the effect of that framework upon efficiency itself wherever the opportunity is presented.

If it be true that the continual intrusion of varying scales of value has served to hinder the development of all of the social sciences, may it not be well to minimize this difficulty as is here suggested? This, it seems to the writer, is already possible in the study of public administration by regarding all value scales as environmental with the exception of one — efficiency. In this way it may be possible to approximate more nearly the impersonal valueless world in which exact science has advanced with such success.

But even so, great difficulties to scientific advance remain. If we may by various devices put fluctuating values to one side, and this is not as easy for other social sciences as it is for public administration, we are still confronted by two problems which the exact scientists have largely escaped. These are:

First, in dealing with human beings we encounter a rare dynamic element which is compounded in unknown proportions of predictable and of unpredictable, of rational and of emotional conduct, and

Second, we are not able, except in the rarest circumstances, to set up controlled experiments or to test theories over and over at will.

The human psyche is significant, not entirely because it is dynamic and in part unpredictable and irrational, but also because human beings are so extraordinarily rare. There are in one cubic centimeter of air 15,000,000,000 times as many molecules as there are individual humans on this earth. It is this scarcity of phenomena which makes the individual variations so difficult and important. If we had as many humans to deal with as the exact scientist has electrons, we might more easily discover the pattern of conduct and the normal probability curves of social life. And in political sci-

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ence, when we turn to aggregates of human beings, organized in nations, we are confronted by a situation of still greater scarcity. There is only one Soviet Union, one Great Britain, one United States of America. With this paucity of phenomena to observe, it would be a miracle indeed if scholars were able to see through to the underlying laws and set them forth, certain that every significant variation was covered. This immensely important problem of variation, which is at the center of social science, was not even suspected to exist in the constitution of matter until a very few years ago, and even now presents a theoretical rather than a practical problem to the physicist because he, amid the plethora of phenomena, may rely on solid averages as a starting point.

Social experiments, moreover, must be made by men on men. This greatly restricts the process of verification of hypotheses not only because of the value and dignity of human life, but also because human beings continually interfere with experiments involving themselves.

There is no easy escape for social science from these two limitations. The number of human beings, though increasing, cannot remotely approach the gigantic statistical arrays which confront the physical scientist even within the confines of the smallest particle of matter. Nor may we follow the biologists and develop extensive controlled experiments to which human beings will readily submit over and over for the sake of pure science. Nor may we hope to develop laboratories in which outside social conditions may be reproduced for purposes of experimentation, for after all these laboratories must contain active elements which behave just like human beings in a normal human setting — and this is precisely that which human beings cannot provide outside of themselves.

Should we look, then, to the invention of instruments as the open sesame of social science? Do we need for social science microscopes, or telescopes, or cathode-ray tubes — that is, instruments to extend our sensory equipment? Do we need thermometers, balances, barometers — that is, instruments with which to make more accurate measurements? Or should our search be directed primarily in some other direction?

Though the writer has been greatly intrigued by the search for new instruments, useful particularly in public administration, and has contributed to the invention or development of some,* it does not seem to him that the invention of instruments for the extension and refinement of the senses is the prime necessity at the present juncture. It is not mechanical instruments we need to enable us to see that which now escapes us. The great need is putting ourselves in a position to use the instruments which we already have.

What we require in the social sciences at the present time, it seems, is:

1. Analysis of phenomena from which we may derive standard nomenclature, measurable elements, and rational concepts;

2. The development of extensive scientific documentation based upon these analyses, and

3. The encouragment of imaginative approach to social phenomena, and the publication and circulation of hypotheses so that they may be scrutinized by others in the light of experience, now and in future years.

* The Merge-Calculator, the Proportional Representation Voting Machine, and various improvements in statistical machinery.

Sumber: Gulick, Luther. 1937. Science, Values and Public Administration. Edited by Gulick, Luther and Urwick, L. 1937: 193 & 194. Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University.Gambar disajikan oleh Levri Ardiansyah (2017).

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The analysis of phenomena, if it is to be of value in future years, or is to be added to the work of others and become part of a growing reservoir of knowledge, must be brought within a single system of definition and nomenclature. This is so obvious that it needs no further proof. It has been the device by which natural science has developed, and makes it possible for each scholar to stand on the shoulders of his predecessors, and not at ground level.

Definition requires careful analysis, analysis which must include the dynamic as well as the static facts. This will in itself show the way to the elements which can be measured, translated to mathematical terms, and thus brought into such form that they may be subjected to the most complete system of logic and inference which man has created. In the development of meaningful measurements, there may be room for new instruments. But, here again, instruments are not the first need. The first need is to discover and name the things that are to be measured. Surely we already have in the punch card, the instantaneous electrical transmission of information, automatic accounting, the electrical scoring of examinations and schedules, the perfected "straw vote," the photo-electric cell, the cinema, the decimal system of filing and classifying, and similar well-known devices, the basic instrumental equipment which is necessary for the advance of the social sciences. We have barely begun to use these devices. It will be observed that they are useful primarily in the summarization of experience for analysis. This is precisely the process which is needed because in the social sciences we start with the restless electron, and endeavor to build up the solid continuum.

The development of documentation is essential in the social sciences because it is the first step in accumulating sufficient data to submerge unimportant variables, and thus to furnish the basis of rational analysis. If we cannot have vast quantities of phenomena from which to work, we must at least accumulate those which we have from generation to generation so that scholars in considering the fate of mankind will not be confined to their own town and their own life span. The effort to "capture and record" administrative experience is surely fundamental. It is perhaps significant that modern science itself arose on the foundations of Greek analysis and documentation, and that science did not emerge even in civilizations further advanced than the Greek in some particulars, where such documentation was conspicuously absent.

And how may we encourage the imaginative approach, the formulation of generalizations, the statement of hypotheses, the building up and testing of theories? There is, of course, no simple answer. But three things are certain: first, we must subsidize social science research and philosophy through the universities and research institutes so that many men may be set free to study, think, and test out ideas; second, we must make it easy for those with ideas to secure their circulation among their fellows; and finally, we must contrive to give recognition to those who come forward with original and valid contributions. All of these factors played their part in the conquest of the natural world by exact science, and may be counted upon again to advance scientific knowledge and control in the world of human affairs.

Sumber: Gulick, Luther. 1937. Science, Values and Public Administration. Edited by Gulick, Luther and Urwick, L. 1937: 195. Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University.Gambar disajikan oleh Levri Ardiansyah (2017).

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Merunut pemikiran tulisan Gulick (1937: 191) berjudul '*Science, Values and Public Administration*' ini, Ilmu administrasi merupakan (1) sistem pengetahuan; sehingga manusia dapat mengerti tentang (2) hubungan, prediksi hasil dan pengaruh hasil setiap situasi; karena (3) manusia diorganisasi untuk bekerja bersama mencapai tujuan tertentu. Kutipannya terbaca '*The science of administration is thus the system of knowledge whereby men may understand relationships, predict results, and influence outcomes in any situation where men are organized at work together for a common purpose'.* Setelah menyatakan batasan Ilmu Administrasi, Gulick meneruskan pada kalimat tentang *public administration,* bukan tentang *administration.* Merunut pemikiran tulisan Gulick (1937: 191) ini terbaca (1) *public administration* merupakan bagian (*a part*) dari *science of administration;* dan (2) *public administration* merupakan bagian (*a division*) dari *political science;* dan karena yang kedua ini, maka (3) *public administration* merupakan satu dari beberapa ilmu yang terumpun sebagai *social science.* Berdasar runutan pola pikir Gulick ini dapat saya ulangi menggunakan kalimat sendiri yakni:

(1) Ilmu Administrasi terdiri dari Administrasi Publik;
(2) Administrasi Publik merupakan bagian dari Ilmu Politik;
(3) Ilmu Politik merupakan anggota rumpun Ilmu Sosial; sehingga
(4) Administrasi Publik merupakan satu anggota rumpun Ilmu Sosial

Dengan meneruskan pola pikir ini, dapat saya tuliskan:

(5) Ilmu Administrasi merupakan satu anggota rumpun Ilmu Sosial.

Timbul pertanyaan pada benak saya, 'Benarkah runutan pola pikir Gulick ini'? Andai saya ingin mencoba memahami runutan pola pikir Gulick ini, timbul pertanyaan 'Bagaimana memahami runutan pola pikir Gulick tentang Ilmu Administrasi, Administrasi Publik, Ilmu Politik dan Ilmu Sosial'?

Jika bagian BA yang terdapat pada suatu ilmu A juga merupakan bagian BP pada suatu ilmu lainnya P, maka (1) BA = BP; dan (2) A ≠ P.

Perjikaan ini berarti:

(1). A dan P merupakan *two unlike object* yakni 2 hal keilmuan yang berbeda, sehingga dapat dinyatakan '*A contrast P*';

(2). Pada *two unlike objects* dapat dinyatakan terdapat *one similar part* setelah terlebih dahulu dilakukan *contiguity* terhadap *contrast;*

(3) *Contiguity* yang dilakukan Gulick terduga terdapat pada kalimat '*Public administration is that part of the science of administration which has to do with government, and thus concerns itself primarily with the executive branch, where the work of government is done, though there are obviously administrative problems also in connection with the legislative and the judicial branches'* sehingga Gulick menyimpulkan '*Public administration is thus a division of political science, and one of the social sciences'.*

Dengan begini, *public administration* yang terdapat pada Ilmu Administrasi dinyatakan sama terhadap *public administration* yang juga merupakan bagian dari Ilmu Politik, karena *public administration* dinyatakan Gulick kesamaannya karena '*has to do with government and thus concerns with the executive branch'.* Berdasar *principles of logic,* runutan pola pikir Gulick dapat saya runut ulang seperti ini:

(1) Administrasi Publik harus bekerja pada pemerintah sebagai satu cabang pemerintah yakni eksekutif.
(2) Pemerintah merupakan bagian dari Ilmu Politik, sehingga:
(3) Administrasi Publik merupakan bagian dari Ilmu Politik

Disini Gulick sepertinya mendasarkan pada *The law of contradiction* sebagaimana pernah diumumkan (*enunciated*) oleh Aristotle, karena sesungguhnya Gulick menyimpan pernyataan yang bertolakbelakang (*contradictory judgment*) yakni Ilmu Administrasi sesungguhnya berbeda terhadap Ilmu Politik. Merunut pemikiran pemikiran Aristotle, pernyataan yang bertolakbelakang '*cannot both be true',* haruslah (1) pada predikat yang mengacu pada subjek yang sama; dan (2) waktu kejadian haruslah identik atau bersamaan. Jika 2 syarat ini terpenuhi, maka *contradictory judgment* pasti akan menghadapi sangkalan (*a refutation*). Jika 2 syarat ini tidak terpenuhi, maka *contradictory judgment* justru akan diakui (*affirmed*) sebagai kebenaran.
Subjek 1: Ilmu Administrasi; Subjek 2: Ilmu Politik
Predikat: harus bekerja pada pemerintah
Pada Ilmu Administrasi, predikat ini dinamai Administrasi Publik dan pada Ilmu Politik, predikat ini dinamai Pemerintah
Dengan mendasarkan pada prinsip bahwa Ilmu Administrasi berbeda terhadap Ilmu Politik, ini berarti Subjek 1 tidak sama terhadap Subjek 2, sehingga persyaratan *the law of contradiction* yakni 'Predikat harus mengacu pada subjek yang sama' tidak terpenuhi, dan karena ini:

1. *Contradictory judgment* pada kalimat 'Administrasi Publik yang harus bekerja pada Pemerintah';
2. Mengacu pada 2 subjek keilmuan yang tak sama, yakni Administrasi Publik pada Ilmu Administrasi sedangkan Pemerintah pada Ilmu Politik; sehingga
3. Pernyataan 'Administrasi Publik bekerja pada Pemerintah' dapat dinyatakan sebagai kalimat yang benar dan diakui kebenaran pernyataan ini.

Perlu saya tulis disini bahwa Ilmu Sosial senyatanya tidak ada, karena Ilmu Sosial merupakan himpunan beberapa bidang ilmu yang terumpun sebagai Ilmu Sosial (*Social Sciences*) diantaranya adalah Sosiologi, Antropologi, Ilmu Ekonomi, dan Ilmu Politik. Bagi Gulick, Ilmu Administrasi termasuk rumpun

Ilmu Sosial, sedangkan bagi Pemerintah Indonesia, Ilmu Administrasi termasuk rumpun Ilmu Terapan (berdasar UU No 12 Tahun 2012 Pasal 10 Ayat 2 Huruf f).

Pada beberapa hal, Ilmu Sosial bersandar pada Ilmu Fisikal, sebagai contoh Ilmu Ekonomi maupun Ilmu Politik berkembang sebagai ilmu berdasarkan temuan ilmiah pada Ilmu Alam dan aplikasi teknologinya. Pada tulisan Gulick (1937: 191) berjudul '*Science, Values and Public Administration*' tercetak '*Social science rests at many points upon the physical sciences. Economics and politics, for example, are fundamentally conditioned by the discoveries of pure science and their technological application. The advance of certain of the exact sciences thus becomes of great concern and serves to condition and delay the advance of social science. The very fact that exact science has made a great forward surge in the past one hundred years, inevitably thrusts a whole new series of unsolved problems upon social science'*.

Perspektif tentang Administrasi

Perspektif Waldo

Pada buku karya Marx, Fritz Morstein (1949: xii) berjudul '*Elements of Public Administration. Fourth Printing'* (New York: Prentice-Hall-Inc) tercetak:

Dwight Waldo, **formerly of Yale University, is a member of the political science department at the University of California in Berkeley. In 1942 he became a staff member of the Office of Price Administration, serving successively as an administrative assistant, assistant economist, and price analyst. In 1945 he transferred to the Administrative Management Division of the Bureau of the Budget, Executive Office of the President, where he devoted his time principally to organizational studies. His published writings, thus far confined to the learned reviews, have dealt with such seemingly disparate matters as social thought and public-service recruitment. His first book, an analysis of the theory of American public administration, is scheduled for early release.**

Sumber: Marx, Fritz Morstein. 1949: xii. Elements of Public Administration. Fourth Printing. New York: Prentice-Hall-Inc. Gambar disajikan oleh Levri Ardiansyah (2017).

Dwight Waldo

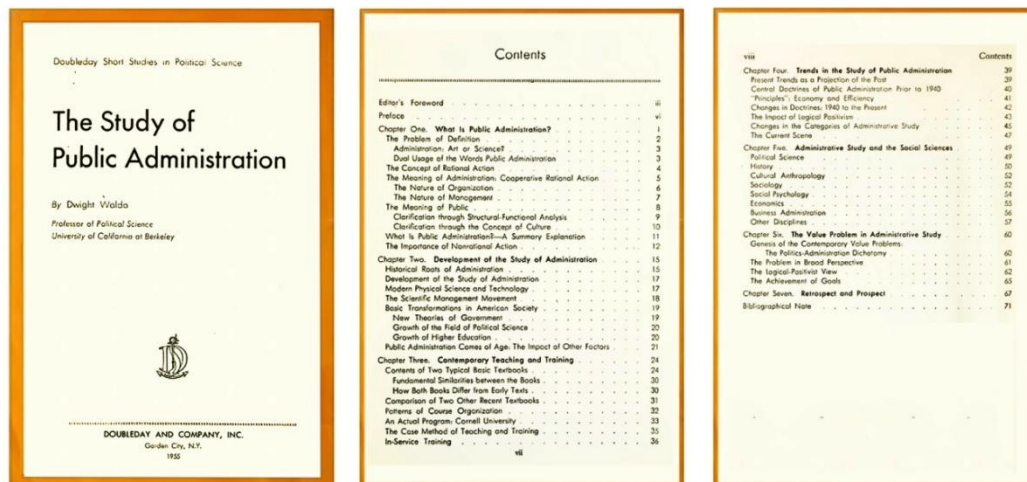
Professor of Political Science
University of California at Berkeley

Lahir di DeWitt, Nebraska, 28 September 1913
Wafat pada 27 Oktober 2000 dalam usia 87 tahun.
Waldo memiliki 5 orang saudara laki-laki dan perempuan.
Pekerjaan orangtuanya bertani dan berjualan dengan membuka toko kecil.
Pendidikan orangtuanya SMA tetapi tidak sampai selesai.

Waldo sekolah di Nebraska Wesleyan, lulus sebagai guru
dan pernah mengajar di State Teachers College di Peru.
Waldo kemudian kuliah S-1 di Yale University pada program studi
ilmu politik. S-2 di University of Nebraska dan S-3 di Yale University.

Sumber: Richard Stillman, March 19, 2002, National Academy of Public Administration. A Tribute to Dwight Waldo at the Wayback Machine , Public Affairs Report, Vol. 42, No. 1, Spring 2001, Institute of Governmental Studies, UC Berkeley. Diolah oleh Levri Ardiansyah (2016).

Sejarah pemikiran tentang administrasi merupakan realitas yang menunjukan eksistensi keilmuan administrasi. Aku berpikir karenanya aku ada. Pemikiran tentang definisi administrasi, perspektif, konsep bahkan teori administrasi adalah juga fakta yang bersumber dari berbagai disiplin ilmu terutama matematika, fisika, biologi dan psikologi.

Administration as Cooperation

Doubleday Short Studies in Political Science

The Study of Public Administration

By Dwight Waldo

Professor of Political Science
University of California at Berkeley

DOUBLEDAY AND COMPANY, INC.
Garden City, N.Y.
1955

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Sumber: Waldo, Dwight. 1955. The Study of Public Administration. Garden City, New York: Doubleday and Company Inc. Gambar dibuat oleh Levri Ardiansyah (2016).

Sederhananya, administrasi adalah kerjasama (*cooperation*). Profesor Dwight Waldo (1955) menegaskan definisi ini pada bukunya yang berjudul '*The Study of Public Administration*' sebagai berikut:"*Administration has been defined as cooperation and thus by definition as a social activity"* (Waldo, 1955:54). Dalam definisi ini, Waldo merefleksikan kerjasama sebagai aktivitas sosial, yang terjadi pada manusia dalam sistem sosial. Menariknya, Waldo menjelaskan bahwa kajian tentang *human cooperation* lebih tepat bersumberkan pada Psikologi Sosial, bukan pada Sosiologi, karena bentuk dasar dari *cooperation* terlihat pada *primary groups* atau *face to face groups*. Waldo bahkan menyarankan kepada para mahasiswa untuk membaca buku karya George C. Homans (1950) yag berjudul '*The Human Group*' agar pemahaman tentang *face to face* menjadi lebih kaya. Sosiologi, merunut pemikiran Waldo (1955:52) lebih fokus pada kajian tentang sebab dan akibat interaksi yang terjadi pada kehidupan masyarakat (*Sociology concerns itself with the most general problems of cause and effect in human societies*). Data yang digunakan oleh para sosiolog bersumber pada Sejarah dan Antropologi, sedangkan data yang digunakan oleh para psikolog sosial bersumber pada Psikologi, yang dapat membuktikan secara ilmiah adanya *originate interaction*. Psikologi memberi pengetahuan tentang fakta tindakan (*action*) dan bagaimana proses emosi terbentuknya tindakan sedangkan Psikologi Sosial memberi pengetahuan tentang bagaimana tindakan menjalani pengalaman (*experience*) berinteraksi dalam kelompok yang sederhana.

Social Psychology

Administration has been defined as cooperation and thus by definition as a social activity. The study of psychology as it relates to the social is therefore relevant to administrative study. Students of administration are interested in many of the data and findings of social psychology, and social psychologists find administrative phenomena an important area of study.

Sumber: Waldo, Dwight.1955:54. The Study of Public Administration. Garden City, New York: Doubleday and Company Inc. Gambar dibuat oleh Levri Ardiansyah (2016).

Adanya beragam teori, konsep dan perspektif yang bersumber dari disiplin ilmu selain Ilmu Administrasi disatu sisi telah memperkaya pemahaman tentang administrasi, namun disisi lain menyadarkan Waldo saat itu bahwa administrasi sulit didefinisikan berdasarkan Ilmu Administrasi. Hal ini karena memang kala itu, eksistensi Ilmu Administrasi masih diperdebatkan secara ilmiah. Oleh karena ini, Waldo mendefinisikan administrasi sebagai tipe, yaitu kumpulan perspektif. Waldo (1955:5) menulis ”*Administration is a type of cooperative human effort that has a high degree of rationality”.* Adanya kalimat ‘*administration is a type*’ menunjukan sikap ilmiah Waldo yang mengambil jalan tengah dari kontroversi keilmuan administrasi. Waldo tidak dapat secara tegas mendefinisikan administrasi berdasarkan ranah Ilmu Administrasi, meski Waldo meyakini bahwa administrasi adalah ilmu tersendiri. Oleh karena ini, definisi yang dirumuskan Waldo berdasarkan realitas objektif eksistensi Ilmu Administrasi kala itu, yang mengadopsi berbagai konsep atau teori yang bersumber dari ilmu lainnya. Waldo sendiri mendasarkan pemikirannya tentang administrasi bersumberkan pada Biologi dan Psikologi.

Administration was described as a type of cooperative human endeavor with a high degree of rationality. What distinguishes it as a *type?* The answer depends in part upon the perspective. In one perspective the sociologist views the distinguishing characteristics as those he subsumes under the concept of *bureaucracy* (this is discussed in Chapter Five). In the conventional perspective of the student of administration these characteristics are best subsumed under the two terms *organization* and *management*.

Sumber: Waldo, Dwight. 1955: 6. The Study of Public Administration. Garden City, New York: Doubleday and Company Inc. Gambar dibuat oleh Levri Ardiansyah (2016).

Sudah menjadi ketentuan ilmiah bahwa konsep atau teori yang bersumber dari ilmu lain, manakala digunakan oleh ilmuwan administrasi dalam merumuskan definisi, maka definisi yang terbentuk merupakan suatu perspektif. Waldo (1955:6) menjelaskan tentang apa yang dimaksud dengan *type* yaitu beragam pemikiran, sudut pandang, maupun konsep yang dikemukakan oleh para ahli dari berbagai disiplin ilmu yang diadopsi oleh para ahli administrasi sebagai perspektif dalam mendefinisikan administrasi. Waldo mencontohkan salah satu perspektif yang bersumber dari Sosiologi yaitu konsep tentang birokrasi, yang dipandang oleh para ahli administrasi termasuk juga mahasiswa sebagai organisasi dan manajemen. Jika konsep birokrasi ini ditindaklanjuti oleh ilmuwan administrasi melalui penelitian ilmiah, misalnya tentang birokrasi pada organisasi pemerintah daerah, maka konsep birokrasi dapat menjadi konsep organisasi dalam administrasi.

The Meaning of Administration: Cooperative Rational Action

Up to this point we have invariably dealt with the expression *public administration* and at no time with the noun *administration* alone. An appropriate next step is to examine into the meaning of the noun alone, and then into that of the adjective.

We may proceed by analogy: Public administration is a species belonging to the genus administration, which genus in turn belongs to a family which we may call *cooperative human action.* The word *cooperative* is here defined in terms of results: human activity is cooperative if it has effects that would be absent if the cooperation did not take place. Thus—to take a

Sumber: Waldo, Dwight. 1955: 5. The Study of Public Administration. Garden City, New York: Doubleday and Company Inc.
Gambar dibuat oleh Levri Ardiansyah (2016).

Hasil dari *cooperation* adalah *cooperative.* Pernyataan ini dikemukakan oleh Waldo (1955:5) dengan kalimat '*The word 'cooperative' is here defined as terms of results*' yaitu sebagai akibat (*effects*) dari adanya *cooperation.* Merunut pemikiran Waldo, *cooperative* tidak akan pernah terwujud jika *cooperation* tidak ada (*human activity is cooperative if it has effects that would be absent if the cooperation did not take place*). Dalam kalimat ini bisa kita baca bahwa Waldo menekankan *cooperative* pada tindakan manusia berupa *human activity* yang dilihat berdasarkan 2 perspektif yaitu (1) efek; dan (2) kehadiran / ketidakhadiran. sehingga jelas bahwa yang dimaksud Waldo sebagai *human activity* adalah *action* yang terjadi di luar tubuh manusia yaitu pada ranah pengalaman (*experience*) berinteraksi dengan manusia lainnya. Waldo memberi makna administrasi dalam konteks ini sebagai *cooperative rational action,* bukan *cooperative experienced action.* Berdasarkan Psikologi, *rational action* adalah tindakan yang terjadi pada proses emosi yang berlangsung di dalam otak berupa aktivitas berpikir dan berperasaan, sedangkan *experienced action* adalah tindakan yang terjadi di lingkungan berupa durasi pengalaman berinteraksi. Dalam bahasa administrasi, kita memahami *rational action* ini sebagai aktivitas

mengambil keputusan (*decision making*). Merunut pemikiran Waldo, *rational action* adalah tindakan yang betul-betul penuh perhitungan untuk merealisasikan tujuan-tujuan yang diinginkan dengan meminimumkan ketidakmampuan merealisasikan tujuan-tujuan lain yang juga diinginkan. Waldo (1955:4) menulis "*the concept of rational action defined here as action correctly calculated to realize given desired goals with minimum loss to the realization of other desired goals".* Waldo mencontohkan *rational* ini pada sistem ekonomi Amerika yang memberikan kebebasan pada perusahaan untuk berkompetisi diantara mereka dalam suatu administrasi yang baik, karena pada dasarnya kompetisi yang merupakan *antagonistic cooperation* tetap saja merupakan tindakan yang rasional karena bertujuan meraih keuntungan tertentu dengan cara memproduksi dan mendistribusikan barang-barang ekonomi.

Waldo (1955:6) memberi batasan yang tinggi tentang *rational action* yang dapat direfleksikan sebagai administrasi yaitu *high degree of rationality. Middle degree of rationality* bukanlah administrasi apalagi *lower degree of rationality.* Waldo menjelaskan tentang "*high degree of rationality"* dengan diawali pertanyaan retorik "*Whose goals or ends shall be used in assessing rationality?* Waldo mengingatkan bahwa tidak mudah untuk menilai tujuan mana yang berdasarkan rasionalitas dan tujuan mana yang tidak berdasarkan rasionalitas. Bukan hanya itu, tetapi tujuan siapa yang akan digunakan adalah pertanyaan penting yang harus dijawab. Apakah tujuan saya, dia, mereka, organisasi atau negara? Oleh karena ini, Waldo berpendapat bahwa ide tentang tujuan merupakan ide yang penting dalam definisi administrasi. Waldo menulis:"*The idea of purpose or goal is essential to the definition of administration".* Meski demikian, Waldo mengakui tidak mudahnya untuk memahami ide tentang tujuan ini seperti *quicksilver* (air raksa) yang selalu menghindar *(eludes)* dan mengalir menyebar (*scatters)* ke berbagai arah. Secara retoris Waldo bertanya, apa kita memang benar-benar tahu apa tujuan yang sesungguhnya? Inilah *high degree of rationality,* yaitu kesadaran kita sebagai seorang manusia (*human consciousness*) bahwa kita tahu tujuan sesungguhnya mengapa kita melakukan kerjasama (*cooperation*). Untuk mengetahui tujuan itu, kita berpikir melalui proses emosi yang mempertimbangkan pengalaman subjektif kita (*subjective experiences*) untuk menghasilkan tindakan dan perasaan (*action and feeling*).

The Meaning of Administration: Cooperative Rational Action

Up to this point we have invariably dealt with the expression *public administration* and at no time with the noun *administration* alone. An appropriate next step is to examine into the meaning of the noun alone, and then into that of the adjective.

We may proceed by analogy: Public administration is a species belonging to the genus administration, which genus in turn belongs to a family which we may call *cooperative human action*. The word *cooperative* is here defined in terms of results: human activity is cooperative if it has effects that would be absent if the cooperation did not take place. Thus—to take a frequently used illustration—when two men roll a stone which neither could roll alone, they have cooperated. The result, the rolled stone, is the test. But what if one of the two men has lent his effort unwillingly, perhaps under threat of bodily harm from the other: Is this cooperation? It is, in the meaning here assigned. Cooperation as ordinarily used suggests willingness, even perhaps enthusiasm; so we are straining the customary meaning. But the English language seems to have no word better adapted to the meaning here desired. The expression *antagonistic cooperation*, incidentally, is sometimes used in the social sciences to distinguish unwilling from willing cooperation.

Sumber; Karya ilustrasi Levri Ardiansyah (2016) dengan teks dari buku karya Waldo. 1955: 5. The Study of Public Administration. Garden City, N.Y: Doubleday & Company, Inc.

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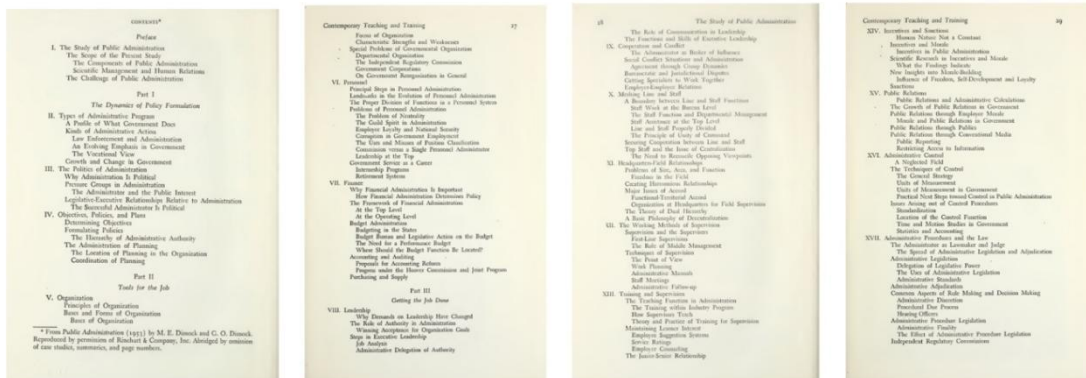
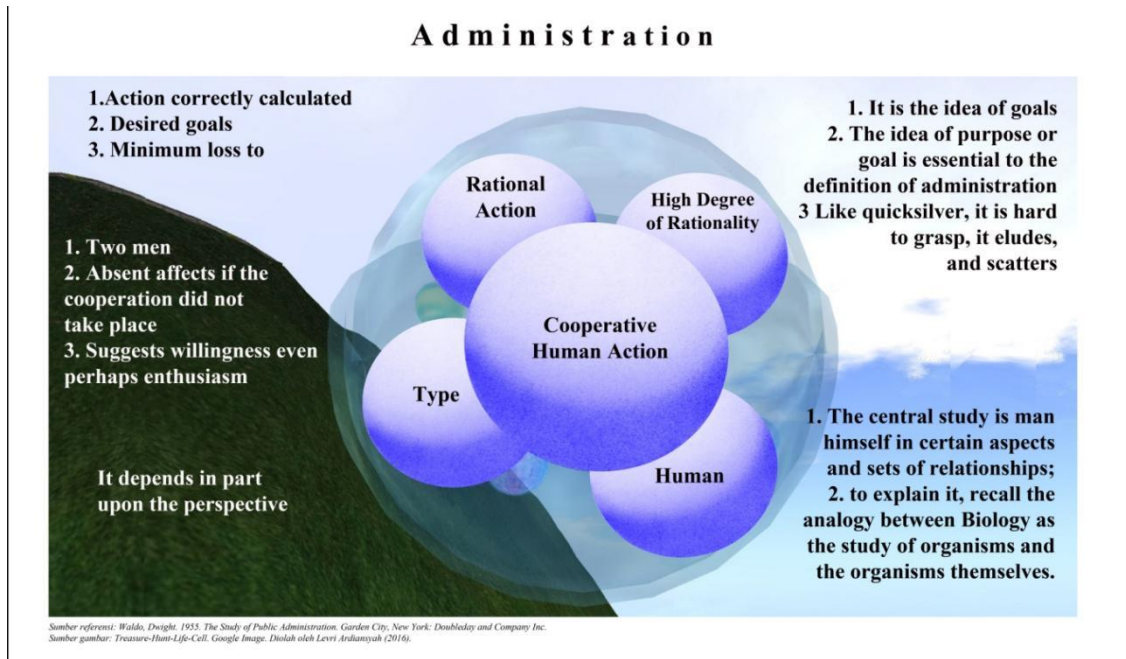

Sumber: https://archive.org. Gambar diolah oleh Levri Ardiansyah (2016).

definisi yang dikemukakan oleh Dwight Waldo (1955:6) dalam bukunya berjudul "*The Study of Public Administration*" sebagai berikut: "*Administration is a type of cooperative human effort that has a high degree of rationality. This description in turn needs some qualification"*. Merunut pemikiran Waldo, administrasi merupakan suatu tipe pemikiran tentang upaya kerjasama manusia berdasarkan tingkat rasionalitas yang tinggi. Ada 3 konsep inti dalam definisi ini yaitu: (1) *type*; (2) *cooperative human effort* dan (3) *high degree of rationality*. Waldo mengawali penjelasan definisi ini dari kata *rational.* Waldo menulis, "*First, administration is not neccessarily the only type of human cooperation that is rational."* Waldo mencontohkan *rational* ini pada sistem ekonomi Amerika yang memberikan kebebasan pada perusahaan untuk berkompetisi diantara mereka dalam suatu administrasi yang baik, karena pada dasarnya kompetisi yang merupakan *antagonistic cooperation* tetap saja merupakan tindakan yang rasional karena bertujuan meraih keuntungan tertentu dengan cara memproduksi dan mendistribusikan barang-barang ekonomi.

Sumber referensi: Waldo, Dwight. 1955. The Study of Public Administration. Garden City, New York: Doubleday and Company Inc.
Sumber gambar: Treasure-Hunt-Life-Cell. Google Image. Diolah oleh Levri Ardiansyah (2016).

Merunut pemikiran Waldo (1955:4), *rational action* adalah tindakan yang betul-betul penuh perhitungan untuk merealisasikan tujuan-tujuan yang diinginkan dengan meminimumkan ketidakmampuan merealisasikan tujuan-tujuan lain yang juga diinginkan. Waldo menulis "*the concept of rational action defined here as action correctly calculated to realize given desired goals with minimum loss to the realization of other desired goals"*. Kata kunci dalam definisi ini adalah *minimum loss to,* yaitu meminimumkan ketidakmampuan. Hal ini berarti: pertama, *rational action* yang dimaksud Waldo memiliki 2 tujuan, yaitu *given desired goals* (GDG) dan *other desired goals* (ODG). Pada saat kita menetapkan GDG, Waldo menyarankan agar kita membuat secara rasional satu tujuan lagi yaitu ODG yang merupakan *scenario goals*. Kedua, *rational action* terkait erat dengan kemampuan untuk merealisasikan ODG, yang juga harus diperhitungkan secara matang, sama rasionalnya dengan GDG. Pada paragraf selanjutnya, Waldo menulis bahwa *rational action* itu juga berarti *action* yang didesain untuk memaksimalkan pencapaian tujuan (*it is action designed to maximize the realization of goals).*

Seringkali terjadi, energi kita telah terkuras habis untuk merealisasikan tujuan yang kita inginkan. Segenap sumberdaya kita kerahkan maksimal untuk mencapainya. Dalam pandangan Waldo, tindakan semacam ini bukanlah *rational action* meski pada saat merumuskan tujuan itu kita menggunakan metode ilmiah dan berdasarkan pada realitas objektif. *Rational action* terjadi jika kita juga memaksimalkan kemampuan untuk merealisasikan tujuan lain yang kita inginkan. Caranya adalah optimalisasi realisasi GDG agar tidak kekurangan kemampuan untuk merealisasikan ODG. Dengan demikian, tindakan rasional yang dimaksud oleh Dwight Waldo adalah (1) bahwa kerjasama didasarkan atas tujuan yang dihasilkan dari perhitungan yang matang; (2) adanya kemampuan

untuk merumuskan serta merealisasikan tujuan dan (3) adanya tindakan untuk mengawali kerjasama, bekerjasama, mengakhiri kerjasama dan membangun kerjasama yang baru.
Selanjutnya Waldo (1955:6) menjelaskan tentang "*high degree of rationality"* dengan pertanyaan retorik "*Whose goals or ends shall be used in assessing rationality?* Memang Waldo mengakui tidak mudah untuk menilai tujuan mana yang berdasarkan rasionalitas dan tujuan mana yang tidak berdasarkan rasionalitas. Bukan hanya itu, tetapi tujuan siapa yang akan digunakan adalah pertanyaan penting yang harus dijawab. Apakah tujuan saya, dia, mereka, organisasi atau negara? Oleh karena ini, Waldo berpendapat bahwa ide tentang tujuan merupakan ide yang penting dalam definisi administrasi. Waldo menulis:"*The idea of purpose or goal is essential to the definition of administration".* Meski demikian, Waldo kembali mengakui tidak mudahnya untuk memahami ide tentang tujuan ini seperti *quicksilver* (air raksa) yang selalu menghindar *(eludes)* dan mengalir menyebar (*scatters)* ke berbagai arah. Secara retoris Waldo bertanya, apa kita memang benar-benar tahu apa tujuan yang sesungguhnya?

Terakhir barulah Waldo menjelaskan tentang apa yang dimaksud dengan *type.* Waldo menulis: *What distinguishes it as a type? The answer depends in part upon the perspective. In one perspective the sociologist views the distinguishing characteristics as those he subsumes underthe concept of bureaucracy (this is discussed in Chapter Five). In the conventional perspective of the student of administration these characteristics are best subsumed under the two terms organization and management.* Merunut pemikiran Waldo, adanya kata *type* pada definisi administrasi itu karena memang terdapat beragam perspektif tentang *cooperative human effort.* Sosiolog misalnya, memandang *cooperative human effort* sebagai perilaku sosial dalam masyarakat yang kompleks sehingga harus dipahami dalam perspektif struktur sosial. *Effort* yang dimaksud Waldo adalah *action* dalam perspektif Psikologi dan *goal* dalam perspektif Ilmu Politik adalah tujuan negara yang dicapai melalui organisasi pemerintah. Dalam Ilmu Politik, *goal* terkait erat dengan kekuasaan yang harus direbut dan dipertahankan.

Dengan demikian, definisi administrasi mengandung 3 konsep inti yaitu: (1) perspektif; (2) tindakan kerjasama manusia*;* dan (3) rasionalitas, sehingga administrasi dapat didefinisikan sebagai perspektif tentang tindakan kerjasama berdasarkan rasionalitas. Lebih mendasar lagi, substansi dari ketiga konsep inti ini adalah tindakan kerjasama manusia (*cooperative human action),* karena pada *cooperative human action* tentu saja terdiri dari berbagai perspektif atau tipe pemikiran dan berdasarkan Psikologi, *action* terbentuk berdasarkan rasionalitas yang terjadi dalam *working memory.* Dalam kalimat yang sederhana, tindakan terjadi sebagai hasil dari proses berpikir secara rasional. Konsep *cooperative human action* ini sendiri singkatnya adalah tindakan kerjasama (*cooperation).* Dalam penjelasannya tentang definisi administrasi, Waldo memaparkan bahwa

konsekuensi dari definisi administrasi adalah *cooperation* dan karenanya merupakan aktivitas sosial sehingga menjadikan ilmu administrasi terkait erat dengan studi psikologi sosial. Waldo (1955:6) menulis,"*Administration has been defined as cooperation and thus by definition as a social activity. The study of psychology as it relates to the social is therefore relevant to administrative study. Students of administration are interested in many of the data and findings of social psychology, and social psychologists find administrative phenomena an important area of study".*

Terhadap substansi definisi administrasi sebagai tindakan kerjasama manusia (*cooperative human action*) pertanyaan introspektifnya adalah "Apakah Ilmu Administrasi merupakan ilmu tentang tindakan kerjasama (*cooperative action*) ataukah Ilmu Administrasi merupakan ilmu tentang tindakan manusia yang bekerjasama (*human work cooperatively*)?" Ada 2 pilihan mendasar. Pada pilihan pertama, administrasi berarti tindakan kerjasama yang terjadi antar-manusia atau tindakan kerjasama antara manusia dengan alat yang diciptakannya atau bahkan bisa jadi tindakan kerjasama antar-alat tanpa adanya interrelasi dengan manusia. Sedangkan pada pilihan yang kedua, fokus kajian administrasi terletak pada manusia, yaitu manusia yang bekerjasama berdasarkan tingkat rasionalitas yang tinggi. Pada pilihan ini, anak-anak tidak termasuk dalam definisi administrasi, meskipun anak-anak adalah manusia, namun anak-anak adalah manusia yang tidak dapat melakukan kerjasama apalagi berdasarkan tingkat rasionalitas yang tinggi. Begitu juga para pensiunan, karena mereka adalah manusia yang telah selesai melakukan pekerjaan kerjasama. Bagaimana dengan diri manusia itu sendiri? Dalam konteks administrasi adalah manusia yang bekerjasama, pertanyaan introspektif lainnya adalah,'Apakah manusia dapat bekerjasama dengan dirinya sendiri?" Apakah Ilmu Administrasi juga mengkaji tentang proses kerjasama manusia dengan dirinya sendiri? Jika introspeksi semacam ini diteruskan lebih mendalam lagi, pertanyaannya adalah, 'Apakah Ilmu Administrasi juga mengkaji tentang proses kerjasama manusia dengan bayangannya sendiri?. Terhadap pertanyaan terakhir ini, penulis tak berkehendak untuk menulisnya dalam buku ini. Biarlah ia mengalir pada alir introspektif semata yang sifatnya retorik.

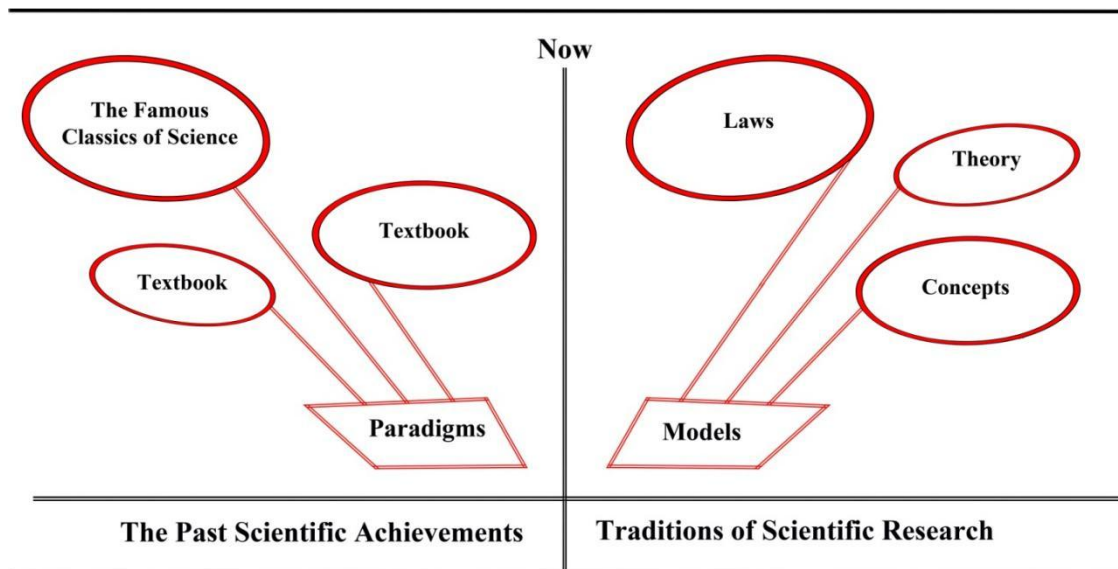
Kedua pilihan mendasar ini menjadi perspektif dalam introspeksi Ilmu Administrasi, yaitu (1) administrasi dalam perspektif tindakan kerjasama ataukah (2) administrasi sebagai perspektif manusia yang melakukan tindakan bekerjasama. Kedua pilihan perspektif ini sesungguhnya bermuara pada satu inti yang sama yaitu tindakan (*action*). Perspektif pertama merupakan perspektif luas yang mempersepsi tindakan sebagai interrelasi pada *natural action,* interaksi pada *human action* maupun interrelasi pada *device action. Natural action* meliputi tindakan interrelasi antar-unsur pada alam fisik, biologis maupun fisiologis, sedangkan *device action* merupakan interrelasi antara berbagai alat hasil ciptaan manusia, yang dengan demikian merupakan *inteelletual property.*

Perspektif kedua merupakan perspektif khusus yang mempersepsi tindakan sebagai interaksi antara manusia dengan manusia, baik dalam bentuk *dyadic, face group, organisation* maupun *society.*

Dalam perspektif tindakan kerjasama sebagai tindakan kerjasama yang terjadi pada manusia (*human action*), bermuara pada 2 jenis tindakan kerjasama yaitu (1) kerjasama yang baik (*good action*) dan (2) kerjasama yang benar (*right action*). Kerjasama yang baik berdasarkan pada filosofi estetika sedangkan kerjasama yang benar berdasarkan pada filosofi etika. Estetika merupakan studi tentang *values and value judgements* dengan pertanyaan mendasar mengenai *art, beauty and good taste* sedangkan etika merupakan studi dengan pertanyaan mendasar tentang *how people should act* sehingga mendapat kejelasan tentang tingkah laku yang benar (*right conduct*). Sebagai estetika, *good action* merupakan *good taste* yang berdasarkan pada *good values* dan sebagai etika, *right action* merupakan *right behaviour.*

Paradigma Administrasi

Paradigma

Paradigma maupun Model dapat saya ilustrasikan seperti ini:

Sumber: Karya ilustrasi Levri Ardiansyah (2017) merunut tulisan pada buku karya Kuhn, Thomas S., (1996: 10) berjudul 'The Structure of Scientific Revolutions. Third Edition' (Chicago and London: The University of Chicago Press)

Pada buku karya Kuhn, Thomas S., (1996: 10) berjudul '*The Structure of Scientific Revolutions. Third Edition'* (Chicago and London: The University of Chicago Press) terbaca bahwa istilah paradigma yang digunakan pada buku ini berkaitan erat terhadap istilah '*Normal Science*' yang tercetak '... *I shall henceforth refer to as 'paradigms,' a term that relates closely to 'normal science'*. Merunut pemikiran tulisan Kuhn, Thomas S., (1996: 10), *normal science* berarti penelitian berdasarkan satu atau lebih pencapaian ilmiah pada masa lalu (*past scientific achievements*) yang memberi landasan hingga dapat dipraktikan lebih jauh (*as supplying the foundation for its further practice*). Cetakan tulisannya seperti ini '*In this essay, 'normal science' means research firmly based upon one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice'*. Bentuk terakui dari *past scientific achievements* berupa *textbook* maupun *the work* yakni (1) *textbooks expound the body of accepted theory, illustrate many or all of its successful applications, and compare these applications with exemplary observations and experiments;* dan (2) *the works* berupa *famous classics of science fulfilled a similar function,* yakni hasil kerja para filsuf maupun ilmuwan *to define the legitimate problems and methods of a research field for succeeding generations of practitioners* yang tertulis sendiri ataupun tertulis oleh orang lain. Kedua rupa *the past scientific achievements* ini memiliki 2 karakteristik mendasar (*two essential characteristics*) yakni (1) *Their achievement was sufficiently unprecedented to attract an enduring group of adherents away from competing modes of scientific activity;* dan (2) *Simultaneously, it was sufficiently open-ended to leave all sorts of problems for*

the redefined group of practitioners to resolve. Kutipan halaman 10 dan 11 tergambar seperti ini:

II. The Route to Normal Science 10

In this essay, 'normal science' means research firmly based upon one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice. Today such achievements are recounted, though seldom in their original form, by science textbooks, elementary and advanced. These textbooks expound the body of accepted theory, illustrate many or all of its successful applications, and compare these applications with exemplary observations and experiments. Before such books became popular early in the nineteenth century (and until even more recently in the newly matured sciences), many of the famous classics of science fulfilled a similar function. Aristotle's ***Physica,*** Ptolemy's ***Almagest,*** Newton's ***Principia*** and ***Opticks,*** Franklin's ***Electricity,*** Lavoisier's ***Chemistry,*** and Lyell's ***Geology***—these and many other works served for a time implicitly to define the legitimate problems and methods of a research field for succeeding generations of practitioners. They were able to do so because they shared two essential characteristics. Their achievement was sufficiently unprecedented to attract an enduring group of adherents away from competing modes of scientific activity. Simultaneously, it was sufficiently open-ended to leave all sorts of problems for the redefined group of practitioners to resolve.

Achievements that share these two characteristics I shall henceforth refer to as 'paradigms,' a term that relates closely to 'normal science.' By choosing it, I mean to suggest that some accepted examples of actual scientific practice—examples which include law, theory, application, and instrumentation together—provide models from which spring particular coherent traditions of scientific research. These are the traditions which the historian describes under such rubrics as 'Ptolemaic astronomy' (or 'Copernican'), 'Aristotelian dynamics' (or 'Newtonian'), 'corpuscular optics' (or 'wave optics'), and so on. The study of

11 *The Route to Normal Science*

paradigms, including many that are far more specialized than those named illustratively above, is what mainly prepares the student for membership in the particular scientific community with which he will later practice. Because he there joins men who learned the bases of their field from the same concrete models, his subsequent practice will seldom evoke overt disagreement over fundamentals. Men whose research is based on shared paradigms are committed to the same rules and standards for scientific practice. That commitment and the apparent consensus it produces are prerequisites for normal science, i.e., for the genesis and continuation of a particular research tradition.

Because in this essay the concept of a paradigm will often substitute for a variety of familiar notions, more will need to be said about the reasons for its introduction. Why is the concrete scientific achievement, as a locus of professional commitment, prior to the various concepts, laws, theories, and points of view that may be abstracted from it? In what sense is the shared paradigm a fundamental unit for the student of scientific development, a unit that cannot be fully reduced to logically atomic components which might function in its stead? When we encounter them in Section V, answers to these questions and to others like them will prove basic to an understanding both of normal science and of the associated concept of paradigms. That more abstract discussion will depend, however, upon a previous exposure to examples of normal science or of paradigms in operation. In particular, both these related concepts will be clarified by noting that there can be a sort of scientific research without paradigms, or at least without any so unequivocal and so binding as the ones named above. Acquisition of a paradigm and of the more esoteric type of research it permits is a sign of maturity in the development of any given scientific field.

If the historian traces the scientific knowledge of any selected group of related phenomena backward in time, he is likely to encounter some minor variant of a pattern here illustrated from the history of physical optics. Today's physics textbooks tell the

Sumber: Kuhn, Thomas S. 1996: 10 & 11. The Structure of Scientific Revolutions. Third Edition. Chicago and London: The University of Chicago Press. Gambar disajikan oleh Levri Ardiansyah (2017).

Singkatnya, 2 karakteristik mendasar pada *the past scientific achievements* berupa *textbook* maupun karya ilmiah terkenal / karya filosofis terkenal yang (1) tak terbandingkan karena berisi pemikiran orisinal yang belum pernah ditemukan sebelumnya hingga menarik untuk dibaca dan (2) terbuka selamanya untuk dikritisi dan didefinisikan kembali. Dengan begini, paradigma yang dimaksud Kuhn merupakan pencapaian ilmiah kemarin maupun dulu kala (*paradigms as the past scientific achievements*) yang digunakan untuk (1) membatasi (*redefined*) masalah maupun konstruksi konseptual dan (2) menjadi landasan keteguhan sikap mengambil keputusan terhadap permasalahan hari ini (*resolve*). Merunut pemikiran tulisan Kuhn, Thomas S., (1996: 10), tercetak '*Achievements that share these two characteristics I shall henceforth refer to as 'paradigms,' a term that relates closely to 'normal science'.*

Dengan istilah paradgma ini, Kuhn menyarankan agar beberapa contoh praktik ilmiah yang dapat diterima dengan baik (*some accepted examples of actual scientific practice*) berupa penerapan *law* maupun *theory* dapat menjadi '*Models'* dengan bersumber dari tradisi penelitian ilmiah. Merunut pemikiran tulisan Kuhn, Thomas S., (1996: 10) tercetak '*By choosing it, I mean to suggest that some accepted examples of actual scientific practice-examples which include law, theory, application and instrumentation together provide models from which spring particular coherent traditions of scientific research. These are the traditions which the historian describes under such rubrics as 'Ptolemaic astronomy' (or 'Copernican'), 'Aristotelian dynamics' (or 'Newtonian').* Kuhn mencontohkan, '*Ptolemaic astronomy*' (*or 'Copernican'*) merupakan tradisi penelitian ilmiah yang baik untuk dapat dijadikan model oleh astronom saat ini dalam membangun paradigma tentang astronomi kontemporer. Bagi saya, *the laws of association* yang dikemukakan Plato maupun Aristotle merupakan *traditions of scientific research* sebagai petunjuk yang baik hingga dapat saya terima (masuk akal) untuk menyederhanakan pemikiran tentang administrasi melalui konstruksi model tertentu berdasarkan *the past scientific achievements* hingga paradigma saya tentang administrasi semakin jelas.

Perbedaan paradigma terhadap *normal science* tercetak pada buku karya Kuhn, Thomas S., (1996: 64) berjudul '*The Structure of Scientific Revolutions. Third Edition'* (Chicago and London: The University of Chicago Press) yakni paradigma mengarahkan perhatian penelitian pada kelompok, sedangkan *normal science* mengarah pada penelitian yang merinci informasi dan ketepatan observasi. '*On the other hand, within those areas to which the paradigm direets the attention of the group, nonnal science leads to a detail of information and to a precision of the observation-theory match that could be achieved in no other way. Furthe more, that detail and precision-of-match have a value that transcends their not always very high intrinsic interest'.*

Model yang dapat diterima maupun pola (*pattern*) yang dapat diterima, keduanya merupakan suatu paradigma. Merunut pemikiran tulisan pada buku karya Kuhn, Thomas S., (1996: 23) berjudul '*The Structure of Scientific Revolutions. Third Edition'* (Chicago and London: The University of Chicago Press) tercetak '*In its established usage, a paradigm is an accepted model or pattern, and that aspect of its meaning has enabled me, lacking a better word, to appropriate 'paradigm' here'.* Kuhn mencontohkan, pola yang digunakan pada *grammar* Bahasa Latin yakni *'amo, amas, amat'* merupakan paradigma, karena berdasar pola ini dapat dibuat pola yang serupa terhadap banyak kata kerja seperti *'laudo, laudas, laudat'.* Model ataupun pola berulang ini dapat menjadi paradigma dan pada *science,* paradigma merupakan '*an object for replication'.* Saya pikir dengan begini, menggunakan paradigma berarti menggunakan metode induksi untuk (1) memperluas pengetahuan tentang fakta ilmiah tertentu dengan paradigma sebagai pencetus maksud yang dituju (*by extending the knowledge of*

those facts that the paradigm displays as particularly revealing); (2) meningkatkan keselarasan diantara berbagai fakta terhadap prediksi yang tergambarkan melalui paradigma (*by increasing the extent of the match between those facts and the paradigm's predictions*) dan (3) semakin memperjelas artikulasi paradigma (*by further articulation of the paradigm itself*). Kutipannya tergambar seperti ini:

III. The Nature of Normal Science

What then is the nature of the more professional and esoteric research that a group's reception of a single paradigm permits? If the paradigm represents work that has been done once and for all, what further problems does it leave the united group to resolve? Those questions will seem even more urgent if we now note one respect in which the terms used so far may be misleading. In its established usage, a paradigm is an accepted model or pattern, and that aspect of its meaning has enabled me, lacking a better word, to appropriate 'paradigm' here. But it will shortly be clear that the sense of 'model' and 'pattern' that permits the appropriation is not quite the one usual in defining 'paradigm.' In grammar, for example, '*amo, amas, amat*' is a paradigm because it displays the pattern to be used in conjugating a large number of other Latin verbs, e.g., in producing '*laudo, laudas, laudat*.' In this standard application, the paradigm functions by permitting the replication of examples any one of which could in principle serve to replace it. In a science, on the other hand, a paradigm is rarely an object for replication. Instead, like an accepted judicial decision in the common law, it is an object for further articulation and specification under new or more stringent conditions.

To see how this can be so, we must recognize how very limited in both scope and precision a paradigm can be at the time of its first appearance. Paradigms gain their status because they are more successful than their competitors in solving a few problems that the group of practitioners has come to recognize as acute. To be more successful is not, however, to be either completely successful with a single problem or notably successful with any large number. The success of a paradigm—whether Aristotle's analysis of motion, Ptolemy's computations of planetary position, Lavoisier's application of the balance, or Maxwell's mathematization of the electromagnetic field—is at the start largely a promise of success discoverable in selected and

23

The Structure of Scientific Revolutions

still incomplete examples. Normal science consists in the actualization of that promise, an actualization achieved by extending the knowledge of those facts that the paradigm displays as particularly revealing, by increasing the extent of the match between those facts and the paradigm's predictions, and by further articulation of the paradigm itself.

Sumber: Kuhn, Thomas S. 1996: 23 & 24. The Structure of Scientific Revolutions. Third Edition. Chicago and London: The University of Chicago Press. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Kuhn, Thomas S., (1996: 52) ini tercetak kaitan antara paradigma terhadap metode induksi, dengan adanya istilah '*Paradigm-Induced Expectation*' maupun '*Paradigm-Induced Expectation,* Kuhn, Thomas S., (1996: 56)'. Saya menginterpretasi adanya keterkaitan erat paradigma terhadap metode induksi yang juga dapat terbaca pada buku karya Kuhn, Thomas S., (1996: 24) yakni (1) area penelitian *normal science* berskala kecil (*minuscule*); (2) fokus perhatian paradigma meliputi rentang yang kecil (*small range*) dan (3) dengan menggunakan paradigma berarti ilmuwan meneliti beberapa bagian rinci saja secara mendalam dari fakta alam yang luas (*investigate some part of nature in a detail and depth*). Kutipannya tercetak seperti ini '*The areas investigated by normal science are, of course, minuscule; the enterprise now under discussion has drastically restricted vision. But those restrictions, born from confidence in a paradigm, turn out to be essential to the development of science. By focusing attention upon a small range of relatively esoteric problems, the paradigm forces scientists to investigate some part of nature in a detail and depth that would otherwise be unimaginable'*. Merunut pemikiran tulisan Kuhn, Thomas S., (1996: 25) terbaca bahwa pada *normal science* yang penelitiannya merupakan *paradigm-based research,* aktivitas teoretikal dimulai dengan mengumpulkan fakta berdasarkan eksperimen dan observasi. Kutipannya tercetak seperti ini '*To display more clearly what is meant by normal or paradigm-based research, let me now attempt to classify and illustrate the problems of which normal science*

principally consists. For convenience I postpone theoretical activity and begin with fact-gathering, that is, with the experiments and observations described in the technical journals through which scientists inform their professional colleagues of the results of their continuing research'.

Model dan pola (*patterns*) dapat diterima untuk menjadi paradigma manakala didasarkan pada komitmen menggunakan aturan dan standar yang sama. Pada buku karya Kuhn, Thomas S., (1996: 11) berjudul '*The Structure of Scientific Revolutions. Third Edition'* (Chicago and London: The University of Chicago Press) tercetak '*Men whose research is based on shared paradigms are committed to the same rules and standards for scientific practice. That commitment and the apparent consensus it produces are prerequisites for normal science, i.e., for the genesis and continuation of a particular research tradition'*. Sebagai contoh standar yang sama adalah penggunaan metode atau cara pandang yang sama tentang suatu penomena (*standard set of methods or of phenomena,* Kuhn, Thomas S., 1996: 13).

Kuhn, Thomas S., (1996: 25)
There are, I think, only three normal foci for factual scientific investigation, and they are neither always nor permanently distinct. First is that class of facts that the paradigm has shown to be particularly revealing of the nature of things.
a Kuhn, Thomas S., (1996: 26)
A second usual but smaller class of factual determinations is directed to those facts that, though often without much intrinsic interest, can be compared directly with predictions from the paradigm theory.
a Kuhn, Thomas S., (1996: 27)
A third class of experiments and observations exhausts, I think, the fact-gathering activities of normal science. It consists of empirical work undertaken to articulate the paradigm theory, resolving some of its residual ambiguities and permitting the solution of problems to which it had previously only drawn attention. This class proves to be the most important of all, and its description demands its subdivision.
Merunut pemikiran tulisan Kuhn, Thomas S., (1996: 42), *rules* terurai berdasarkan paradigma (*Rules, I suggest, derive from paradigms*). Kutipannya tercetak '*Normal science is a highly determined activity, but it need not be entirely determined by rules. That is why, at the start of this essay, I introduced shared paradigms rather than shared rules, assumptions, and points of view as the source of coherence for normal research traditions. Rules, I suggest, derive from paradigms, but paradigms can guide research even in the absence of rules'.*
Model yang dibuat berdasarkan prosedur dan aplikasi tertentu merupakan '*Paradigm procedures and applications*' sedangkan model yang dibuat berdasarkan *laws* dan teori merupakan '*Paradigm laws and theories*'. Merunut pemikiran tulisan Kuhn, Thomas S., (1996: 60), terbaca '*Paradigm procedures*

and applications are as necessary to science as paradigm laws and theories, and they have the same effects.

Fungsi paradigma adalah kontributor penemuan baru atau bisa jadi sebagai sebab munculnya penemuan baru. Merunut pemikiran tulisan Kuhn, Thomas S., (1996: 66), terbaca '*All the discoveries considered in Section VI were causes of or contributors to paradigm change'*.

Andai saya hanya membaca *science* pada *science text* semata, rasanya tidak sulit mengaplikasikan *science* berupa *applied science* lalu dijadikan bukti ilmiah adanya suatu teori. Dengan begini, mahasiswa saya akan menerima teori berdasarkan kewenangan saya sebagai dosen, bukan berdasarkan pada bukti ilmiah. Merunut pemikiran tulisan Kuhn, Thomas S., (1996: 80), terbaca '*Given the slightest reason for doing so, the man who reads a science text can easily take the applications to be the evidence for the theory, the reasons why it ought to be believed. But science students accept theories on the authority of teacher and text, not because of evidence'*.

Seeing Administration Not in the Class of Existent Science
Saya pikir, eksistensi administrasi tidak terdapat pada administrasi ini sendiri, melainkan terdapat pada proses adanya administrasi yang dapat diketahui pada subtansi administrasi (*the existence of administration is not in administration itself, but in the being of the substance of administration*). Merunut pemikiran tulisan Rosmini (1883: 202 vol. II), terbaca bahwa yang dimaksud dengan *being* adalah *is* yakni '*When I say being, I mean that which is. Therefore which is neither a being nor anything appertaining to a being, is nothing'*. Untuk mengetahui substansi administrasi, dapat dilacak pada bagian-bagian administrasi tertentu (*particular administration*) yang secara intelektual dapat dipersamakan terhadap administrasi (*is the same thing as intellectually to perceive administration*) sehingga dengan begini, persepsi tentang bagian-bagian administrasi dapat dirumuskan sebagai *judgement* tentang eksistensi administrasi, yakni eksistensi administrasi pada klasifikasi ilmu (*to the class of science that have existence*) tepatnya '*the class in which that science of administrasion is placed*'. *Particular administration* disini saya arahkan sebagai persepsi untuk memahami administrasi sebagai *sensible thing* dengan cara melihat keberadaan Ilmu Administrasi saat ini di dalam klasifikasi ilmu yang telah lebih dahulu diakui dunia eksistensi keilmuannya (*by seeing administration in the class of existent science*).

Manakala Ilmu Administrasi tak dapat saya nyatakan sebagai *particular administration* karena tidak diakui eksistensi keilmuannya pada klasifikasi ilmu, maka ini berarti saya harus merumuskan *a synthesis* berdasarkan pemahaman saya tentang administrasi. Pada buku karya Serbati, Antonio Rosmini (1883: 32) berjudul '*The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak 'III. *Hence it is impossible to form a particular idea without contributing thereto the idea of existence; and, since this operation may be called a synthesis, a particular idea implies a synthesis made by understanding*'. Sebacaan saya, metode yang diakui kebenaran ilmiah untuk menyatakan administrasi merupakan benda berujud fisik hingga dapat dibuktikan adanya fakta administrasi adalah observasi dan eksperimen, yakni '*to observe what each of this administration has in it of "common" and what of "proper"* sehingga dapat terjelaskan komposisi administrasi yang terdiri dari 2 elemen: '*the common and the proper*'. Hati-hatinya disini, '*the common*' yang juga dipahami sebagai '*the universal*' bukanlah fakta karena '*it is an element of ideas, not a real element of external things*'. *The existence of these things is purely individual and proper...'* (Serbati, Antonio Rosmini (1883: 30).

Langkah perumusan sintesis ini diikuti pula dengan analisis yakni mempersepsi *the universal administration* melalui abstraksi yang mengurai administrasi hingga terbaca bagian-bagian pentingnya saja. Pada buku karya Serbati, Antonio Rosmini (1883: 32) berjudul '*The Origin of Ideas. Vol. 1. Translated from the*

Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee' (London: Kegan Paul, Trench & Co) tercetak '... *the universal can be drawn through abstraction, because the universal is already contained in that idea. This operation is called analysis* '. Perbedaan *synthesis* terhadap *analysis* terletak pada pengalaman dan pengetahuan. Saat persepsi saya tentang administrasi terbentuk melalui pengalaman, lalu saya tuliskan menjadi sebuah buku, maka peristiwa ini merupakan *synthesis.* Saat saya membaca beberapa buku tentang administrasi, lalu me-*review* naskah yang saya buat, maka tindakan saya ini merupakan *analysis.*

Makna Ilmu dan Fakta Ilmiah
Pengertian Ilmu

Perdebatan ilmiah tentang apakah administrasi adalah ilmu telah berlangsung sejak era *administrative revolution* di abad ke-18. Pada tulisan seorang ekonom, K.E. Boulding (1953) dalam bukunya berjudul '*The Organizational Revolution: A Study in the Ethics of Economics Organization*' dapat terbaca bahwa revolusi administrasi terpicu oleh berkembangnya pemikiran tentang '*nature, causes, effects*' pada administrasi sebagai akibat pertumbuhan organisasi yang amat pesat, baik dari jumlah, ukuran maupun kompleksitas organisasi. Kala itu, maraknya kajian tentang administrasi kembali memunculkan perdebatan lama, satu pihak merefleksikan administrasi sebagai Ilmu Administrasi, dan pihak lain beranggapan bahwa administrasi bukanlah ilmu.

Secara sederhana, ilmu atau *science* yang berasal dari Bahasa Latin yaitu *scire* memiliki arti sebagai *to know* dan *science* dipandang merupakan pengembangan yang lebih tinggi dari pengetahuan umum (Collins, 1889, *An Epitome of Synthetic Philosophy*). Jika *science* tak teruji kebenaran ilmiahnya, maka semua pengetahuan yang terkait dengan *science* itu juga menjadi tertolak.

5. What is Science? To see the absurdity of the preju dice against it, we need only remark that Science is simply a higher development of common knowledge; and that if Science is repudiated, all knowledge must be repudiated along with it. It is nowhere possible to say where the dicta of common sense end and the generalizations of Science begin.

Sumber: Collins, F. Howard. 1889:4. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Merunut tulisan Anthony O'Hear (1990:202), *science* merupakan aktivitas intelektual yang luas berdasarkan terminologi tertentu (*science as an intellectual activity largely on its own terms*). *We have looked at problems and questions which atem from within the activity itself: its methods and proof procedures, the postulation of unobservable forces and entries and its claim to discern the deep structure of the world, the way in which knowledge grows in science, the significance of a scientific reduction, and the meaning of probability statements in science".*

Sir William Dampier defines science as "Ordered knowledge of natural phenomena and the rational study of the relations between the concepts in which those phenomena are expressed."

Bertrand Russell gives a wider definition: "Science, as its name implies, is primarily knowledge; by convention it is knowledge of a certain kind, namely, which seeks general laws connecting a number of particular facts. Gradually, however, the aspect of science as knowledge is being thrust into the back-ground by the aspect of science as the power to manipulate nature."

Sumber: Freedman, Paul. 1949. The Principles of Scientific Research. London: Macdonald & Co., (Publisher) Ltd. Gambar dibuat oleh Levri Ardiansyah (2016)

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CONTROL IN EVOLUTION

A DISCUSSION

OF THE

FUNDAMENTAL PRINCIPLES OF SOCIAL ORDER AND PROGRESS

BY

George F. Wilkin, Ph.D.

INTRODUCTORY NOTE BY

AUGUSTUS H. STRONG, D.D., LL.D.

PRESIDENT OF ROCHESTER THEOLOGICAL SEMINARY

וַיֹּאמֶר אֱלֹהִים יְהִי־אוֹר

GENESIS 1: 3

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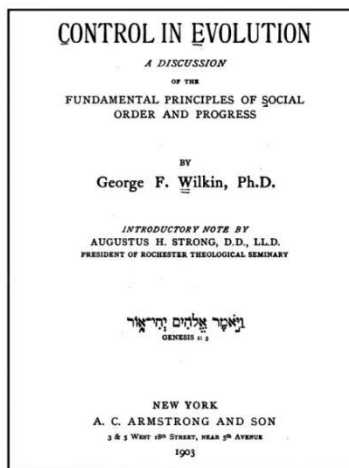
1903

And then, for the first time in human history, a *rational* sociology became possible. For, until then, society itself had been in leading strings. Not yet having attained to the prerogative of rational self-determination, it was not prepared to understand, much less to formulate, the principles of a social order and a social progress based upon rational self-determination. Science is an interpretation of fact, not a formulation of prophetic speculation; and thus society's actual attainment of her maturity must antedate the scientific formulation of a doctrine of society's maturity.

Sumber: Wilkin, George F. 1903:62. Control in Evolution, A Discussion of the Fundamental Principles of Social Order and Progress. New York: A.C. Armstrong & Son. Gambar dibuat oleh Levri Ardiansyah (2016).

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Pengertian Fakta

Fakta juga dipahami sebagai *nature* itu sendiri, yaitu *the nature of pile of bricks, regarded merely as a fact and without reference to its origin, is determined by the nature – size, shape, consistency etc – ot the individual bricks and by the force of gravitation that holds them in place* (Wilkin, 1903:59-60, '*Control in Evolution, A Discussion of the Fundamental Principles of Social Order and Progress'*). Dalam pandangan Wilkin ini, fakta merupakan semacam tiang pondasi batu yang memiliki ukuran, ketajaman, konsistensi dan adanya gaya gravitasi sehingga fakta memiliki tempat (*place/location*). Bagi masyarakat awam, fakta lebih mudah dipahami berdasarkan adanya elemen yang jelas, baik itu jelas ukurannya, jelas bagian-bagiannya, jelas ketajamannya dan jelas keberadaan lokasinya. Sehingga beberapa ilmuwan menggunakan istilah elemen untuk menggantikan istilah fakta, seperti Collin (1889:34) misalnya, yang menggunakan istilah *common element.*

91. The ultimate interpretation to be reached by Philosophy, is an universal synthesis comprehending and consolidating the special syntheses of the sciences. The question to be answered is—What is the common element in the histories of all concrete processes?

Sumber: Collins, F. Howard. 1889:34. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Tulisan Henderson (1917:6) dalam bukunya berjudul '*The Order of Nature: An Essay* ' yang dapat kita baca sebagai '.. *the living thing must be made of matter in space and actuated by energy in time..*' menunjukan bahwa energi terjadi di dalam waktu, bukan didalam ruang.

Just because life must exist in the universe, just because the living thing must be made of matter in space and actuated by energy in time, it is conditioned. In so far as this is a physical and chemical world, life must manifest itself through more or less complicated, more or less durable physico-chemical systems.

Sumber: Henderson, Lawrence J. 1917:6. The Order of Nature: An Essay. Cambridge: Harvard University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

Pure Science and Question of Fact

Paling tidak ada 3 langkah ilmiah

Scientific work, broadly speaking—internal scientific work, I shall call it—falls naturally under three headings. There is first the purely repetitive class of work, the work of sorting, classification, and accurate measurement of already well-recognised phenomena.

There is in addition the class of work known as experimental research, where, under carefully controlled laboratory conditions, new characteristics of matter, or little-understood relationships between characteristics, are isolated and exposed.

The language of description he uses, the concepts in terms of which he " explains " what is happening, are usually, although not always, expressed in terms of physically experimental operations, and their magnitudes in terms of numbers on a measuring scale or on some form of time-piece.

The third class of scientific work is what might be called the Theory of Law-making. Here, if anywhere, is the field of speculation. Here various phases of the experimental evidence, provided in the first two classes, are seized upon and collated.

Sumber: Levy, H. 1932:33-35. The Universe of Science. London: Watts & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

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THEODORE H. SAVORY

THE LANGUAGE OF SCIENCE

ITS GROWTH, CHARACTER AND USAGE

There can be no doubt that science is in many ways the natural enemy of language

L.P.S.

ANDRE DEUTSCH

First published 1953 by
ANDRE DEUTSCH LIMITED
12 Thayer Street, Manchester Square
London W1

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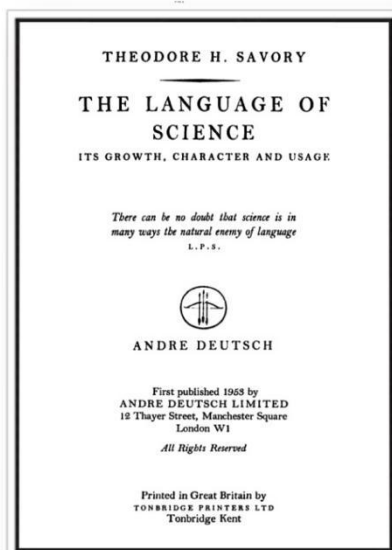
Printed in Great Britain by
TONBRIDGE PRINTERS LTD
Tonbridge Kent

What is science? In the 1860's the implication of the word science to the mind of the ordinary man was atheism and some half-understood nonsense about monkeys; at the turn of the century it meant Röntgen rays, which made the invisible visible; after the First World War it meant wireless waves, which, putting a girdle about the earth, were to weld all civilisation into a harmonious family; and later, after a Second World War, it meant atomic bombs, which threatened to unite civilisation only in universal catastrophe.

results of these speculations he has collected into a mass of anecdotes, regulations, aspirations and warnings which form his religion, and the study of which is called theology. He has probed a little way, a very little way, into the rocks of his earth, into the waters of its seas and into the air, and has recorded the results of his investigations in a mass of materialistic knowledge called science.

Sumber: Savory, Theodore H. 1953_20-21. The Language of Science: Its Growth, Character, and Usage. London: Andre Deutsch Limited. Gambar dibuat oleh Levri Ardiansyah (2016).

Lebih jelasnya lagi, *science* didefinisikan sebagai ilmu yang hanya terkait dengan *question of fact* yaitu '*Is questions*' berupa pertanyaan mendasar yang diawali dengan kata tanya '*What is*'. Sesuatu ditetapkan sebagai *science* jika merupakan fakta yang harus dapat dibuktikan secara empiris dan prinsip-prinsipnya harus dapat diverifikasi. *Science* adalah *pure science* dengan ciri utamanya adalah adanya hukum yang pasti, yang ditemukan melalui serangkaian percobaan terkendali (*well controlled experiments*) dan demonstrasi fakta

sebagai dasar merumuskan deduksi. Hukum Mekanika (*Law of Mechanics*) yang dirumuskan oleh Newton adalah salah satu contoh hukum yang pasti.

Logical positivism makes a sharp distinction between questions of fact ("is" questions) and questions of value ("ought" questions). Science, by definition, deals only with questions of fact. Propositions of *fact* have as their distinguishing characteristic that they can be empirically verified (or at least in principle verifiable). The realm of *value* is the realm of preference, of morals or ethics. The distinguishing characteristic of moral and ethical ("ought") propositions is that they cannot be empirically verified.

Sumber: Waldo, Dwight. 1955:44. The Study of Public Administration. Garden City, New York: Doubleday and Company Inc. Gambar dibuat oleh Levri Ardiansyah (2016).

Satu contoh *question of fact* dapat kita baca pada pertanyaan yang dibuat oleh Collin (1889:34) yaitu '*What is the common element in the histories of all concrete process?*'.

135. All organized results of social action, pass through parallel phases. Being, as they are, objective products of subjective processes, they must display corresponding changes; and that they do this, the cases of Language, of Science, of Art, clearly prove.

136. That an essential characteristic of advancing Science is increase in definiteness, appears almost a truism, when we remember that Science may be described as definite knowledge, in contradistinction to that indefinite knowledge possessed by the uncultured. And if, as is unquestioned, Science has, in the course of ages, been evolved out of this indefinite knowledge of the uncultured; then, the gradual acquirement of that great definiteness which now distinguishes it, must have been a leading trait in its evolution.

Sumber: Collins, F. Howard. 1889:44-45. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

NEW EXPOSITION

OF

THE SCIENCE OF KNOWLEDGE.

BY J. G. FICHTE.

TRANSLATED FROM THE GERMAN

BY A. E. KROEGER.

Published in St. Louis, Mo., 1869.

Part I.—DESCRIPTION OF THE SCIENCE OF KNOWLEDGE.

§ 1. Preliminary Description of Knowledge by its Construction.
§ 2. Description of the Science of Knowledge as a knowledge of Knowledge.
§ 3. Deductions.

Part II.—ON ABSOLUTE KNOWLEDGE.

§ 1. Concerning the Conception of Absolute Knowledge.
§ 2. Formal and Word-Definition of Absolute Knowledge.
§ 3. Real Definition of Absolute Knowledge: Description of the Absolute Substance of Knowledge.
§ 4. Same continued: Description of the Absolute Form of Knowledge.
§ 5. Same concluded: Description of the Unity of Absolute Form and Absolute Substance in Knowledge.

Part III.—ON INTELLECTUAL CONTEMPLATION AND DEDUCTION OF THE FIVEFOLDNESS IN THE FORM OF REFLECTION.

§ 1. Union of Freedom and Being in Absolute Knowledge through Thinking.
§ 2. Description of the Absolute Substance of Intellectual Contemplation as the For-itself of that Thinking.
§ 3. Description of the Absolute Form of Intellectual Contemplation as Original Act of Absolute Reflection of that Thinking.
§ 4. The Absolute Ego as the Absolute Form of Knowledge.

Sumber: Fichte, J.G. 1869:1. New Exposition of the Science of Knowledge. St. Louis, Mo., Philadelphia: J.B. Lippineott & Co. Gambar dibuat oleh Levri Ardiansyah (2016).

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Mendefinisikan *science* sebagai fakta atau benda fisik yang terukur (*matter of measurement*) semata adalah sebuah kekeliruan. Profesor Levy (1932:102) dengan tegas menyatakan bahwa '*Science is frequently stated as being entirely a matter of measurement. This is false*'. Merunut tulisan Prof. Levy, ada *the act of isolation,* yaitu tindakan ilmuwan yang meneliti efek terukur dari sebuah fakta secara kuantitatif, haruslah juga mengukur kualitas.

THE UNIVERSE OF SCIENCE

BY

H. LEVY

Professor of Mathematics at the Imperial College of Science, University of London

First Published 1932

LONDON:

WATTS & CO.,

5 & 6 JOHNSON'S COURT, FLEET STREET, E.C. 4

Science is frequently stated as being entirely a matter of measurement. This is false. The scientific movement is itself an isolate of society. It approaches the universe in which it finds itself not as a completely dissociated venture restricting itself to a fictitious world of its own creation, but as a corporate search for such aspects of the world as it is capable of neutrally isolating with the weapons of investigation it has at its command. Any such isolate is not permanently torn from its roots in the real world, but examined among other things for the limits within which it can be validly isolated. When therefore the scientist seeks to effect a measurement, he is concerned not with a mere number, a disembodied quantity, but with the measurement of a quality that persists throughout the range within which, only, the act of isolation is permissible.

Sumber: Levy, H. 1932:102. The Universe of Science. London: Watts & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Menjelaskan tentang *isolation* ini, Prof Levy menulis, '*Pure mathematics is the method of isolation raised to a fine art. Its most fundamental concept is that of number. Not three apples, three lives, or three ideas, but simply* ***three*** *isolated from its subject or reference, and written 3* (Levy, 1932:82), sehingga di dalam matematika, jika saya memberikan perintah 'ambil 3' berarti 'ambil 3 apa saja terserah'. Meski tampak sederhana, namun ini merupakan pemahaman yang mendasar dalam tahap memahami tentang *isolation.* Prof Levy (1932:85) menulis '*Thus for 3 we say "take three of anything*' and for n, "*take n of them". It was an essential step in the isolation.* Jika kita gunakan simbol + yang berarti 'tambahkan (*add to*)' maka n+m menjadi simbol perintah untuk mengikuti rangkaian operasi tertentu (*a command to follow a particular sequence of operations*). Jika operasi lanjutan itu terjadi dengan adanya simbol = (yang berarti '*equals*') maka m+n = n+m, yang berarti 2 operasi berbeda yang hasilnya sama. Prof Levy (1932:86) memaknai ini seperti ini: '*If = is adopted to mean "equals" then* m+n = n+m *is a statement that if two different operations are carried out, the result will be the same*'. Berdasarkan pandangan Prof. Levy ini dapat disimpulkan bahwa persamaan adalah 2 perbedaan yang melalui operasi tertentu sehingga hasilnya adalah sama. Dengan kalimat lain yang sederhana, persamaan adalah 2 beda yang dipersamakan. Prof Levy (1932:86) melanjutkan

penjelasannya seperti ini: '*The result of the operation of addition can be isolated from the order of individual terms. It is a compact, concise, form of the statement: "It is immaterial as far as the end result is concerned in what order any two numbers are added together'.* Hasil yang sama ini dapat diisolasi dan ringkasnya merupakan benda immateril sejauh hasil ini mengikuti aturan operasi dari 2 angka yang ditambahkan bersama. Hal ini berarti, persamaan adalah 2 beda yang dipersamakan sehingga hasilnya merupakan benda immateriil yang kita maknai sebagai 'sama'.

If = is adopted to mean " equals," then $m + n = n + m$ is a statement that if two different operations are carried out the result will be the same. The result of the operation of addition can be isolated from the order of the individual terms. It is a compact, concise, form of the statement: " It is immaterial as far as the end result is concerned in what order any two numbers are added together." It is a mere assertion, what is called an *identity*, and anything that purports to be a " proof " that it is true is a recognition, by direct observation, that m and n and nothing more appear on both sides of the symbol =; or it refers back to the meaning of m and n as representing members of the system of actual numbers—isolates.

Sumber: Levy, H. 1932:86. The Universe of Science. London: Watts & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Metode isolasi yang dilakukan dengan cara klasifikasi secara rinci, tidak menghilangkan keunikan, khususnya keunikan fungsi (*unique in its mode of functioning*) dari subjek ilmu (Levy, 1932:46-47).

Science from the dawn of history, and probably longer, has been intimately associated with war. I imagine that when our ancestors descended from the trees they were victorious over the arboreal conservatives because flints were sharper than coconuts. To come to more recent times, Archimedes was respected for his scientific defense of Syracuse against the Romans; Leonardo obtained employment under the Duke of Milan because of his skill in fortification, though he did mention in a postscript that he could also paint a bit; Galileo similarly derived an income from the Grand Duke of Tuscany because of his skill in calculating the trajectories of projectiles. In the French Revolution, those scientists who were not guillotined devoted themselves to making new explosives. There is therefore no departure from tradition in the present-day scientists' manufacture of A-bombs and H-bombs. All that is new is the extent of their destructive skill.

Sumber: Newman, James R. 1955:15. What is Science? New York: Simon and Schuster. Gambar dibuat oleh Levri Ardiansyah (2016).

Bagi ilmuwan fisika sendiri, teori-teori fisika ternyata sulit memenuhi karakteristik ilmu sebagaimana dipersyaratkan *pure science,* terutama untuk memenuhi prinsip ilmu sebagai 'hukum yang sederhana'. Banyak teori ilmiah Fisika yang memenuhi prinsip-prinsip ilmu, namun teori-teori ilmiah itu lebih kompleks daripada hukum karena pada teori ilmiah terdapat beberapa komponen yang saling terkait erat. Beberapa diantaranya adalah *atomic theory of matter, electrodynamic theory,* dan *statistical theory* (Max Planck, 1915, *Eight Lectures on Theoretical Physics*). Oleh karena ini, ilmuwan fisika menetapkan bahwa *theoretical science* adalah juga *science* karena memenuhi syarat utama *science* yaitu merupakan fakta.

COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK
PUBLICATION NUMBER THREE
OF THE ERNEST KEMPTON ADAMS FUND FOR PHYSICAL RESEARCH
ESTABLISHED DECEMBER 17TH, 1904

EIGHT LECTURES
ON THEORETICAL PHYSICS

DELIVERED AT COLUMBIA UNIVERSITY
IN 1909

BY
MAX PLANCK
PROFESSOR OF THEORETICAL PHYSICS IN THE UNIVERSITY OF BERLIN
LECTURER IN MATHEMATICAL PHYSICS IN COLUMBIA UNIVERSITY FOR 1909

TRANSLATED BY
A. P. WILLS
PROFESSOR OF MATHEMATICAL PHYSICS IN COLUMBIA UNIVERSITY

NEW YORK
COLUMBIA UNIVERSITY PRESS
1915

CONTENTS.

Sumber: Planck, Max. 1915. Eight Lectures on Theoretical Physics. New York: Columbia University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

Penetapan ini mendapat dukungan dari berbagai bidang pengetahuan yang dapat menunjukan bahwa dirinya adalah fakta yang dapat dihitung, termasuk bidang pengetahuan sosial seperti ekonomi dan psikologi. Edward Atkinson (1904:10) dalam tulisannya berjudul, '*Facts and Figures: The Basis of Economic Science*' memaparkan tentang upaya-upaya para ilmuwan ekonomi membangun metode ilmiah berdasarkan fakta sehingga ekonomi dapat diakui sebagai Ilmu Ekonomi. Salah satu metode yang dianggap terbaik adalah metode pengukuran konsumsi dan produksi dengan berdasarkan pada fakta statistik tentang perdagangan (*commercial statistics*).

FACTS AND FIGURES

The Basis of Economic Science

"Figures never lie unless liars make figures"

BY

EDWARD ATKINSON

BOSTON AND NEW YORK
HOUGHTON, MIFFLIN AND COMPANY
The Riverside Press, Cambridge
1904

even under the present restrictive duties, she buys from us twice the value of the products of agriculture that we buy from her.

The best method of measuring the relative resources of continents and nations is to measure approximately their relative consumption of the necessaries and comforts of life, Consumption and Production being correlative terms. The facts can be established closely enough for all practical purposes on the basis of the commercial statistics. All the principal staples that enter into commerce are listed year by year by quantities and values. That state in which the per capita consumption is the greatest has of course the greatest power of production; production and consumption standing for the conversion of force. In ratio to the production of an abundance of food, shelter, and clothing, which are the subjects of all trade and commerce, will be the consumption; and in ratio to consumption will be the power of production in excess of immediate wants and the setting apart each year of a surplus to be added to the capital of the nation.

In further illustration of this point, it may be fit to revert again to our relations with Canada, whence we might procure fish, potatoes, eggs, oats and oatmeal, hay, spruce wood and wood pulp, wool, and other crude materials. It is true that the greatest benefit would be secured by New England from the removal of taxes on these goods, but not all. The middle west needs the wood for fencing, building, and working over into furniture and dwellings. The millers of the northwest need the grain for conversion; the far west needs coal and ores. All sections alike would be benefited by abating all taxes on Canadian products.

The opposition to the abatement of these taxes is sectional. The Senators and Representatives of the "Hoofed Locusts" demand taxes on Canadian wool, although it is of an entirely different type, the use of which would help and not hinder the use of their wool. No, says Congress, the wool growers must be satisfied. The owners of a fleet of out-of-date fishing-smacks demand the privilege of taxing the food of the

Sumber: Atkinson, Edward. 1904. Facts and Figures: The Basis of Economic Science. Boston and New York: The Riverside Press, Cambridge. Gambar dibuat oleh Levri Ardiansyah (2016).

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It is apparent that Bacon does not differ radically from Aristotle. Had he been able to distinguish the original elements of Aristotle's thought from the master's blunders and the school's vagaries, he must have dealt with the problem quite differently. But neither the age nor the cast of Bacon's own mind was favorable to historical criticism.

Perhaps for this reason Bacon's one genuine contribution to the teleological problem is to be found in his discussion of the method of science. Admitting the Aristotelian principle that mechanism and teleology appear to be two complementary aspects of things, he showed that experience demands their separation in scientific research. Thus he discovered the peculiar feature of physical science that it must proceed as if final causes did not exist, even though he fully agreed that they may be conceived as real. In other words physical science can recognize only one kind of causation, which is physical causation. This is a return to Democritus and Empedocles.

Sumber: Henderson, Lawrence J. 1917:26. The Order of Nature: An Essay. Cambridge: Harvard University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

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In another respect Bacon and Aristotle suffer from a like disability. Neither is able to conceive just how one should go about a physical research. A modern philosopher, to be sure, is far better informed upon this subject, for history affords him many more examples, and Bacon's misconceptions now seem almost inexcusable. Nevertheless he is notoriously wide of the mark in his illustrations of scientific method in the *Novum Organum*, and he failed to see the point of much contemporary research. Perhaps one direct influence of his thought concerning the subject of causation was to enlighten his immediate successors, if indeed the more clear-sighted were in need of enlightenment, but it is certain that he had no valid notion of mechanical causation. This first arises in the investigations of Galileo and receives its first critical treatment at the hands of Descartes.[1]

Sumber: Henderson, Lawrence J. 1917:27. The Order of Nature: An Essay. Cambridge: Harvard University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

Selain dinyatakan dalam bentuk rumus, teori juga dapat dinyatakan dalam bentuk diagram seperti dicontohkan Newman (1955:156) dalam bukunya berjudul '*What is Science*' seperti ini:

The theory has often been represented diagrammatically in some such form as that given below (Fig. 1):

According to this theory, all matter is composed of the four so-called "elements," earth, air, fire and water. Each element, in turn, is pictured as a material embodiment of pairs of fundamental qualities: the hot, the dry, the cold, and the wet. This primitive theory is not to be scorned: the "elements" were selected with discrimination, and the scheme summarizes a great deal of observation and reflection. At an early stage in his intellectual development, man must have been led to discriminate between what we now call the three states of aggregation of matter: the solid, liquid, and gaseous, here represented by earth, water, and air. The fourth "element," fire, stood for what we now term heat or energy.

Fig. 1.

Sumber: Newman, James R. 1955:156. What is Science? New York: Simon and Schuster. Gambar dibuat oleh Levri Ardiansyah (2016).

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Ilmu dan Filosofi

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36. Though in the extent of the sphere which they have supposed Philosophy to fill, men have differed and still differ very widely; yet there is a real if unavowed agreement among them in signifying by this term a knowledge which transcends ordinary knowledge. That which remains as the common element in all the varied conceptions of Philosophy, after the elimination of their discordant elements, is—*knowledge of the highest degree of generality.* This is tacitly asserted by the division of Philosophy as a whole into Theological, Physical, Ethical, &c. For that which characterizes the genus of which these are species, must be something more general than that which distinguishes any one species.

Sumber: Collins, F. Howard. 1889:17. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

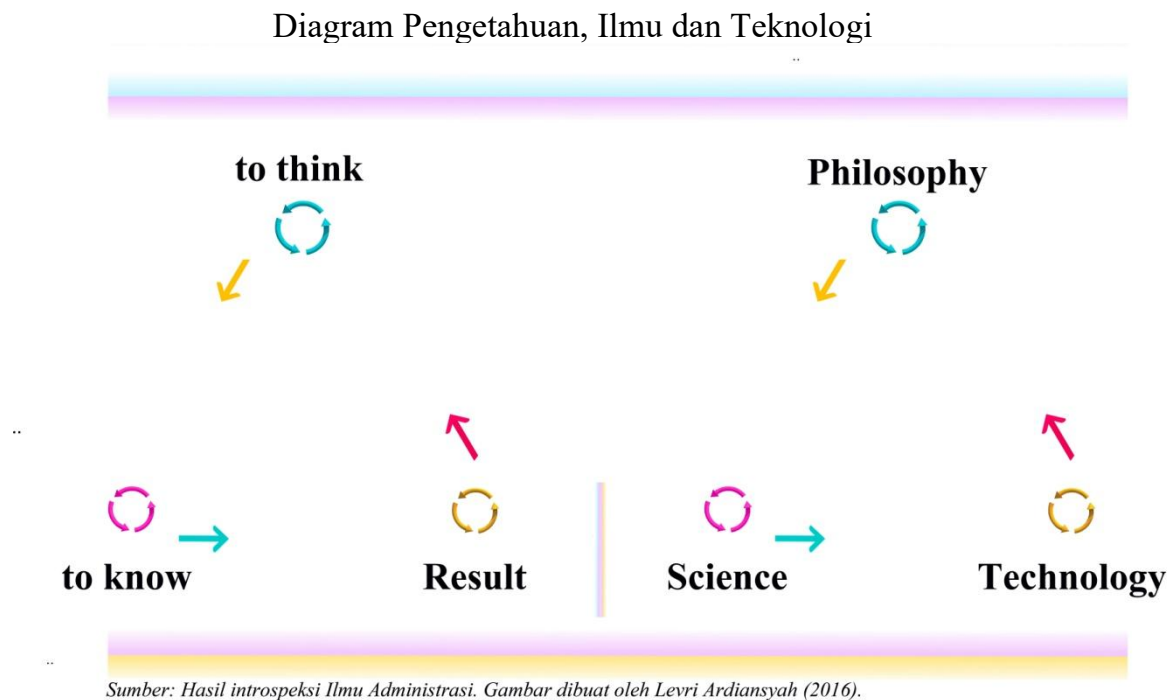
Whitehead (1920:2), seorang *Professor of Applied Mathematics* dalam bukunya berjudul '*The Concept of Nature*' menulis bahwa filosofi merupakan *complex of thoughts* dan *philosophy of science* merupakan kompleksitas pemikiran tentang bagaimana menjadikan pikiran-pikiran filsofis ini menjadi *science.*

Now a science has already a certain unity which is the very reason why that body of knowledge has been instinctively recognised as forming a science. The philosophy of a science is the endeavour to express explicitly those unifying characteristics which pervade that complex of thoughts and make it to be a science. The philosophy of the sciences —conceived as one subject—is the endeavour to exhibit all sciences as one science, or—in case of defeat—the disproof of such a possibility.

Sumber: Whitehead, A.N. 1920:2. The Concept of Nature. Cambridge: Cambridge University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

Simpulan

Diagram Pengetahuan, Ilmu dan Teknologi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Cause, Chance and Effect

Hukum Sebab-Akibat atau *The Law Of Causality* dibangun berdasarkan asumsi bahwa segala sesuatu eksis dan segala sesuatu terjadi. Eksis atau Kejadian merupakan konsekuensi dari adanya benda. Thiele (1903:1) dalam bukunya berjudul '*The Theory of Observations*' menulis: '*We start with the assumption that everything that exists, and everything that happens, exists or happens as a necessary consequence of a previous state of things'*. Pandangan Thiele ini dapat dibaca pada gambar berikut:

I. THE LAW OF CAUSALITY.

§ 1. We start with the assumption that *everything that exists, and everything that happens, exists or happens as a necessary consequence of a previous state of things.* If a state of things is repeated in every detail, it must lead to exactly the same consequences. Any difference between the results of causes that are in part the same, must be explainable by some difference in the other part of the causes.

This assumption, which may be called the law of causality, cannot be proved, but must be believed; in the same way as we believe the fundamental assumptions of religion, with which it is closely and intimately connected. The law of causality forces itself upon our belief. It may be denied in theory, but not in practice. Any person who denies it, will, if he is watchful enough, catch himself constantly asking himself, if no one else, why *this* has happened, and not *that*. But in that very question he bears witness to the law of causality. If we are consistently to deny the law of causality, we must repudiate all observation, and particularly all prediction based on past experience, as useless and misleading.

Sumber: Thiele, T.N. 1903:1. Theory of Observations. London: Charles & Edwin Layton. Gambar dibuat oleh Levri Ardiansyah (2016).

Sebagai suatu asumsi, *The Law of Causality* memang tidak dapat dibuktikan secara ilmiah, namun merunut tulisan Thiele (1903:1) asumsi ini harus diyakini saja kebenarannya sebagaimana kita yakin tentang asumsi mendasar suatu agama.

12. If from the origin of the Universe we turn to its nature, the same difficulties rise up before us under new aspects. The objects and actions surrounding us, not less than the phenomena of our own consciousness, compel us to ask a cause: commit us to the hypothesis of a First Cause; which we have no alternative but to regard as Infinite and Absolute. The mutual contradictions involved in this hypothesis may be shown from Dean Mansel's *Limits of Religious Thought,* where he summarizes them in the following words:—

13. "The conception of the Absolute and Infinite, from whatever side we view it, appears encompassed with contradictions. There is a contradiction in supposing such an object to exist, whether alone or in conjunction with others; and there is a contradiction in supposing it not to exist. There is a contradiction in conceiving it as one; and there is a contradiction in conceiving it as many.

Sumber: Collins, F. Howard. 1889:7. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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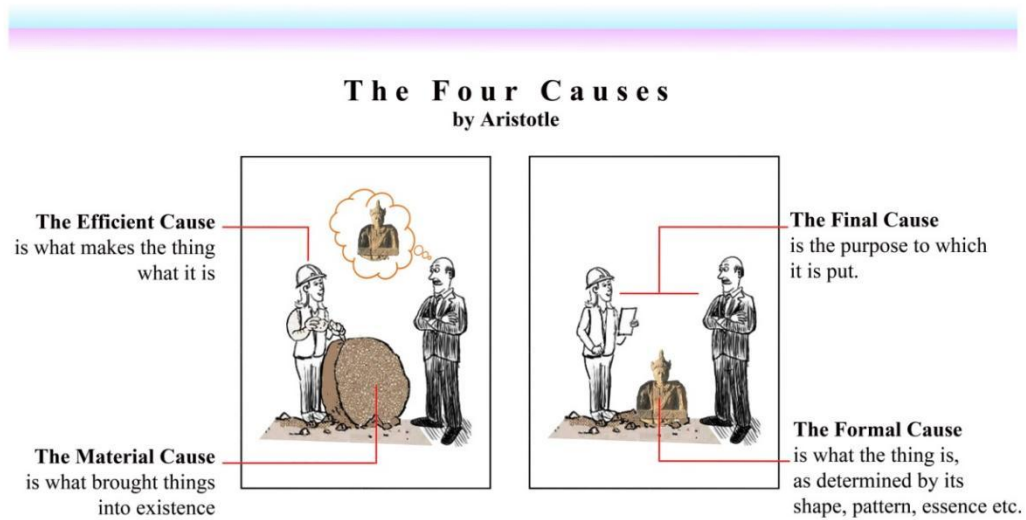
The Four Causes
by Aristotle

The Efficient Cause
is what makes the thing what it is

The Material Cause
is what brought things into existence

The Final Cause
is the purpose to which it is put.

The Formal Cause
is what the thing is, as determined by its shape, pattern, essence etc.

Sumber: Isenhour, Thomas L. 203:28. The Evolution of Modern Science. Norfolk, Virginia, USA.
Sumber gambar kartun: volckmann&hill. Gambar diolah oleh Levri Ardiansyah (2016).

a

cause expresses the idea of necessity in the relation of events, while chance means just the opposite, complete randomness. Nature, as well as human affairs, seems to be subject to both necessity and accident. Yet even accident is not completely arbitrary, for there are laws of chance, formulated in the mathematical theory of probability, nor can the cause–effect relation be used for predicting the future with certainty, as this would require a complete knowledge of the relevant circumstances, present, past, or both together, which is not available.

Sumber: Born, Max. 1948:1. Natural Philosophy of Cause and Chance. London: Oxford University Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

A

This concept of dependence is clear enough if the two things connected are concepts themselves, things of the mind, like two numbers or two sets of numbers; then dependence means what the mathematician expresses by the word 'function'.

Science insists on a criterion for dependence, namely repetitive observation or experiment: either the things *A* and *B* refer to phenomena, occurring repeatedly in Nature and being sufficiently similar for the aspect in question to be considered as identical; or repetition can be artificially produced by experiment.

Sumber: Born, Max. 1948. Natural Philosophy of Cause and Chance. London: Oxford University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

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Fenomena merupakan penyebab (*cause*) yang tidak ketahui dari suatu efek yang telah kita ketahui. Collin (1889:22) menulis definisi fenomena ini sebagai '*an unknown cause of the known effects*'.

51. An Unknown Cause of the known effects which we call phenomena, likenesses and differences among these known effects, and a segregation of the effects into subject and object—these are the postulates without which we cannot think. Just the same warrant which we have for asserting that subject and object coexist, we have for asserting that the vivid manifestations we call objective, exist under certain constant conditions, that are symbolized by these constant conditions among the manifestations we call subjective.

Sumber: Collins, F. Howard. 1889:22. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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48. Our conception of Matter, reduced to its simplest shape, is that of coexistent positions that offer resistance; as contrasted with our conception of Space, in which the coexistent positions offer no resistance. Thus experiences of *force* underlie the idea of Matter. Such being our cognition of the relative reality, what is to be said of the absolute reality? We can only say that it is some mode of the Unknowable, related to the Matter we know, as cause to effect.

Sumber: Collins, F. Howard. 1889:21. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Dalam administrasi, *cause* sebagai tindakan merupakan tindakan yang menyebabkan (*the act of causing*) efisiensi. Lawrence J Henderson (1917:11-12) dalam bukunya '*The Order of Nature: An Essay*' menulis tentang *clear conception of mechanical of 'efficient' causation*, yang merupakan salah satu prinsip mendasar pada *Theory of Final Causes.*

Nevertheless, it was an historical accident that the systematic examination of the teleological concepts was first undertaken by Aristotle, and carried through under peculiar conditions and difficulties. The problem arose, to be sure, from his equal interest in the philosophy of forms and in natural history. Moreover, this conflicting interest in the end prevented a genuine resolution of the difficulties. But it was the accident of his time that compelled him to deal with the ideas of both Democritus and Plato. For the same reason he lacked a clear conception of mechanical or even of "efficient" causation, the one essential foundation of a clear theory of final causes. And, in turn, it was this defect which led to his peculiar idea of development, founded upon metaphysical concepts of matter and form. Hence his most highly elaborated considerations upon this point are least satisfactory.

Sumber: Henderson, Lawrence J. 1917:11-12. The Order of Nature: An Essay. Cambridge: Harvard University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

Aristotle's discussion of causation arises from the consideration that we are obliged to assign to nature several different kinds of causation, two of which are especially important for the philosophy of science. He says himself: "The causes concerned in the generation of the works of nature are . . . more than one. There is the final cause and there is the motor cause. Now we must decide which of these two causes comes first, which second. Plainly, however, that cause is the first which we call the final one. For this is the Reason, and the Reason forms the starting point, alike in the works of art and in the works of nature." [1] It should be observed that the employment of but two kinds of causation in the explanation of nature, in place of the four which are to be found in his more philosophical works, is characteristic of Aristotle as a naturalist.

Sumber: Henderson, Lawrence J. 1917:14. The Order of Nature: An Essay. Cambridge: Harvard University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

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The idea of organization leads at once to a science of physiology based exclusively upon the concept of function. But once more a qualification arises; — this will not do as the complete science, for it deals only with final causes, accordingly "We have . . . to inquire whether necessity may not also have a share in the matter; and it must be admitted that these mutual relations could not from the very beginning have possibly been other than they are." [2]

Thus Aristotle arrives, no doubt less clearly than we may be inclined to think, at the conception of mechanism and teleology as complementary aspects of nature, which are always associated in its manifestations. And he is therefore led to a further question: "Let us now consider the character of the material nature whose necessary results have been made available by rational nature for a final cause." [3]

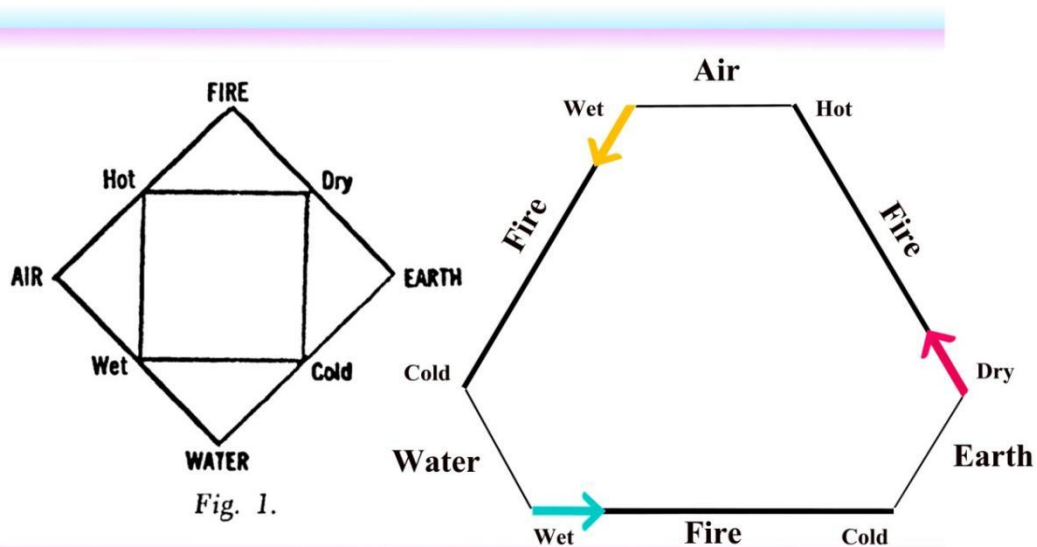
Sumber: Henderson, Lawrence J. 1917:17. The Order of Nature: An Essay. Cambridge: Harvard University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

The theory has often been represented diagrammatically in some such form as that given below (Fig. 1):

According to this theory, all matter is composed of the four so-called "elements," earth, air, fire and water. Each element, in turn, is pictured as a material embodiment of pairs of fundamental qualities: the hot, the dry, the cold, and the wet. This primitive theory is not to be scorned: the "elements" were selected with discrimination, and the scheme summarizes a great deal of observation and reflection. At an early stage in his intellectual development, man must have been led to discriminate between what we now call the three states of aggregation of matter: the solid, liquid, and gaseous, here represented by earth, water, and air. The fourth "element," fire, stood for what we now term heat or energy.

Fig. 1.

Sumber: Newman, James R. 1955:156. What is Science? New York: Simon and Schuster. Gambar dibuat oleh Levri Ardiansyah (2016).

Teori primitif ini sebenarnya bersumber dari '*Doctrine of the Two Contraries*' yang membedakan sifat lalu menjadikannya berpasangan seperti *cold and hot, dry and wet*. Air memiliki *two contraries* yaitu *wet and cold,* udara memiliki *two contraries* yaitu *hot and wet,* Bumi memiliki *two contraries* yaitu *cold and dry* dan api memiliki *two contraries* yaitu *dry and hot.* Teori ini juga menekankan adanya sepasang elemen yang bertentangan (*the two opposed*) yaitu *fire and water.* Dengan menempatkan api sebagai energi yang mengaliri setiap elemen berdasarkan waktu, maka *fig. 1* dapat digambarkan dalam bentuk diagram segitiga seperti ini:

Sumber gambar Fig.1: Newman, James R. 1955:156. What is Science? New York: Simon and Schuster.
Gambar dibuat oleh Levri Ardiansyah (2016) berdasarkan introspeksi Ilmu Administrasi.

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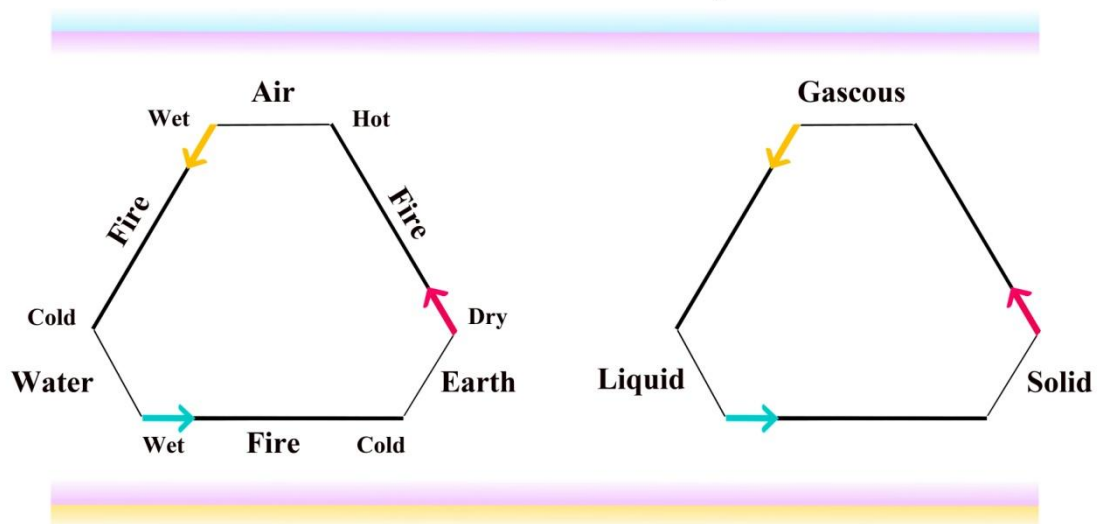
This is however a digression. I am now concerned ith the origin of the scientific doctrine of matter in reek thought. In the *Timaeus* Plato asserts that nature made of fire and earth with air and water as inter-ιediate between them, so that 'as fire is to air so is air water, and as air is to water so is water to earth.' He lso suggests a molecular hypothesis for these four lements. In this hypothesis everything depends on the hape of the atoms; for earth it is cubical and for fire

Sumber: Whitehead, A.N. 1920:17. The Concept of Nature. Cambridge: Cambridge University Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

Solid adalah contoh efek yang merupakan hasil dari penyebab yaitu udara yang dialiri energi api sehingga menimbulkan *progress* berupa sifat *wet* dan *cold* yang mencapai kondisi maksimalnya menjadi *solid,* seperti dapat dilihat pada gambar ini:

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Solid, *liquid and gascous* merupakan agregat materi dari 4 elemen yaitu Bumi, udara, api dan air. Keempat elemen ini merupakan *the earliest imaginative idea of physical science* yang merunut tulisan Newman (1955:155) dapat dipandang sebagai 'Teori Empat Elemen' (*The Four Elements Theory*) yang dijelaskan oleh Aristotle berdasarkan ide imajinatif yang berasal dari Mesir dan India pada 1500 B.C. Merunut teori ini, *all matter is composed of four so called 'elements', earth, air, fire and water.* Setiap elemen memiliki sepasang sifat mendasar (*a pairs of fundamental qualities*) yaitu: *the hot, the dry, the cold and the wet.* Dari keempat elemen ini, tiga diantaranya merupakan '*The Three States of Aggregation of Matter*' yaitu *solid, liquid and gascous* yaitu Bumi merupakan *solid,* air merupakan *liquid* dan udara merupakan *gascous.* Sedangkan elemen yang keempat yaitu api merupakan energi yang mengaliri setiap elemen berdasarkan waktu (*time*).

Dalil Hukum dalam *Pure Science*

LAWS OF
PHYSICAL SCIENCE
A REFERENCE BOOK

BY
EDWIN F. NORTHRUP, PH.D.
PALMER PHYSICAL LABORATORY, PRINCETON UNIVERSITY, PRINCETON, N. J.

PHILADELPHIA AND LONDON
J. B. LIPPINCOTT COMPANY

LAWS OF PHYSICAL SCIENCE

MECHANICS

NEWTON'S FIRST LAW OF MOTION.

Every body continues in its state of rest or of uniform motion in a straight line, except in so far as it may be compelled by force to change that state.

(Thomson and Tait, *Treatise on Natural Philosophy*, Part I, *art.* 244.)

NEWTON'S SECOND LAW OF MOTION.

Change of motion is proportional to force applied, and takes place in the direction of the straight line in which the force acts.

(Thomson and Tait, *Treatise on Natural Philosophy*, Part I, *art.* 251.)

NEWTON'S THIRD LAW OF MOTION.

To every action there is always an equal and contrary reaction; or, the mutual actions of any two bodies are always equal and oppositely directed.

(Thomson and Tait, *Treatise on Natural Philosophy*, Part I, *art.* 261.)

Sumber: Northrup, Edwin F. 1917. Laws of Physical Science. Philadelphia and London: J.B. Lippincott Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Dalil Hukum (*scientific law*) dalam *pure science* haruslah memenuhi beberapa persyaratan diantaranya (1) benar, yaitu 'tak kan pernah ada penelitian ilmiah lainnya yang kontradiktif' dengan hukum ilmu; (2) universal, artinya ilmu dapat diterapkan dimanapun; (3) sederhana, yaitu ilmu dapat dinyatakan secara sederhana melalui rumus yang juga sederhana; (4) mutlak; (5) kekal, artinya hukum yang pertama kali ditetapkan akan tetap sama sampai kapanpun; (6) kuantitatif; dan (7) simetris. Jika kala itu, ilmuwan sosial sepakat dan tak tak dapat menolak bahwa *science* adalah *pure science*, maka di dunia ini ilmu hanya terdiri dari Ilmu Fisika, Ilmu Kimia dan Biologi.

29. The agent which has effected the purification has been Science. The progress of Science, in grouping particular relations of phenomena under laws, and these special laws under laws more and more general, is of necessity a progress to causes that are more and more abstract—less and less conceivable. Hence the most abstract conception, to which Science is ever slowly approaching, is one that merges into the inconceivable or unthinkable.

Sumber: Collins, F. Howard. 1889:13. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Theoretical science is interested in factual matters in general, so to speak, in establishing what are ordinarily thought of as causal relations between phenomena in an abstract (often mathematical) form, without regard to immediate use. A practical science, however, is concerned with use, and puts the propositions of theoretical science to use. This brings "is" and "ought" categories together in a sense, as it is thought that something *ought* to be done or the practical science would not arise.

Sumber: Waldo, Dwight. 1955:44. The Study of Public Administration. Garden City, New York: Doubleday and Company Inc. Gambar dibuat oleh Levri Ardiansyah (2016).

Theory and Theoretical Science

Teori merupakan bagian dari *Theoretical Science* yang kita duga merupakan suatu determinasi yang akurat dan teori dibangun berupa *form, connection and consequences* berdasarkan hipotesis. Sebagai jawaban sementara, hipotesis kerap berubah semakin jelas berdasarkan pengalaman dan observasi. Perubahan hipotesis yang telah dianggap jelas akan menjadi suatu konsep yang akan teruji berdasarkan pengalaman dan observasi. Oleh karena ini, teori merupakan hipotesis yang telah disempurnakan menjadi konsep yang telah teruji. Penjelasan Thiele (1903:4) tentang ini dalam bukunya berjudul '*The Theory of Observations*' dapat dibaca pada gambar berikut:

> § 4. It will be found that every applied science, which is well developed, may be divided into two parts, a theoretical (speculative or mathematical) part and an empirical (observational) one. Both are absolutely necessary, and the growth of a science depends very much on their influencing one another and advancing simultaneously. No lasting divergence or subordination of one to the other can be allowed.
>
> The theoretical part of the science deals with what we suppose to be accurate determinations, and the object of its reasonings is the development of the form, connection, and consequences of the hypotheses. But it must change its hypotheses as soon as it is clear that they are at variance with experience and observation.

Sumber: Thiele, T.N. 1903:4. Theory of Observations. London: Charles & Edwin Layton. Gambar dibuat oleh Levri Ardiansyah (2016).

Pengertian Konsep

Begitu juga psikologi, konsep-konsep tentang kesadaran (*consciousness*) yang semula merupakan *value,* kemudian dapat dibuktikan secara ilmiah sebagai fakta. Gottfried Wilhem Leibniz (1646 – 1716), menemukan bahwa *consciousness* adalah *character of substance* (*the soul*) yang merupakan *unitary energy or activity.* Konsep ini menjadi petunjuk awal ilmiah bahwa kesadaran adalah aktivitas dan karenanya kesadaran adalah fakta. Leibniz juga berhasil membuktikan konsep ini secara ilmiah hingga menjadi *Theory of the One Activity or Energy.* Konsep lainnya yang berhasil dibangun oleh Leibniz adalah bahwa *mind* merupakan penjelasan prinsip-prinsip dari semua realitas (*mind is the explaining principle of all reality*) sedangkan realitas itu sendiri adalah fakta. *Body is an aggregate of monads, in essence souls* dengan cakupan *aggregate* dari *inorganic* hingga manusia. Istilah *inorganic* yang digunakan Leibniz merujuk pada Biologi yaitu *'movement of inorganic salts' within the cell during chemical fixation* (Hughes, 1952:105)*,* sehingga konsep tentang tubuh adalah fakta biologis dengan pergerakan fisik yang dapat dihitung dengan menggunakan rumus fisika. Berdasarkan definisi ini, Leibniz dapat merumuskan *Law of the Relation* yaitu *pre established harmony* (Baldwin, 1913:121, *The History of Psychology*). Selain itu, Leibniz juga dapat meyakinkan para ilmuwan bahwa '*social*' adalah '*the structure of the world*' dan sebagai struktur, sosial

berarti merupakan fakta yang dapat dihitung secara kuanitatif. Meyakinkan karena Leibniz merumuskan konsep-konsep ini berdasarkan observasi, suatu metode ilmiah yang sebelumnya tidak pernah dapat digunakan dalam penelitian psikologi. Baldwin (1913:124) menulis,*'in this connection, his theory of unconscious presentation, petites perception, which have the power of developing into conscious cognitions, is based upon sound obervation'*.

HISTORY OF

PSYCHOLOGY

A SKETCH AND AN INTERPRETATION

BY

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Vol. I. From the Earliest Times to John Locke

LONDON:
WATTS & CO.,
JOHNSON'S COURT, FLEET STREET, E.C.4
1913

DUALISM, RATIONALISM, DOGMATISM 121

soul is not the highest or true soul by which thought is manifested. There is a higher and purer mode than this, and with it there is associated another mode of body. At death this latter, the truer body, accompanies the immortal soul in accordance with the principle of the concomitance of the modes.

Leibnitz (1646–1716).—As mathematician and philosopher, Leibnitz is classed among the greatest geniuses, by reason of the comprehensiveness of his powers. He has been called the Aristotle of modern times. His views are fundamentally metaphysical, since he starts out from the conception of substance. But in consciousness he finds the character of substance. Mind is the explaining principle of all reality. Leibnitz is at once a monist and a pluralist: a monist so far as qualitative distinctions of substance are concerned; he accepted only one substance, the soul: a pluralist so far as independent centres of existence or reality are concerned; there are many independent souls, irreducible "monads."

It is among these independent monads or soul-atoms,[1] each conscious, that the pre-established harmony of the world shows itself. The body is an aggregate of monads, in essence souls. There is no matter as such: only the spiritual monads exist. These aggregates range from the inorganic, through plants and animals, up to man. In the aggregates higher than the inorganic there is a central monad or soul, which in appearance rules the rest; but the law of the relation is that of pre-established harmony.

The monad or spiritual atom is self-active, never passive. Its essence, as shown in consciousness, is

[1] Leibnitz worked out a systematic theory of the monads calling it "monadology."

Sumber: Baldwin, James Mark. 1913. History of Psychology A Sketch and an Interpretation. London: Watt & CO. Reprint by Forgotten Books, London (2013). Gambar dibuat oleh Levri Ardiansyah (2016).

Hobbes (1588-1679) semakin memperkuat psikologi sebagai fakta yang dapat dihitung dengan menggunakan hukum matematika. Hobbes membuktikan bahwa *mind is a function of body,* dan sebagai fungsi, Hobbes dapat menjelaskan *mind* secara kuantitatif sebagai fakta. Hobbes juga berhasil menjelaskan bahwa *matter and soul* sebagai *dualist* yang tak terpisah, dan dengan demikian, *matter and soul* dapat dihitung dengan menggunakan hukum matematika (*mathematical laws*). Dalam teorinya yang dikenal sebagai '*The Rational Theory of the Origin of Knowledge*' Hobbes menjelaskan seperti ini:

> '*Mind, said Hobbes, is a function of body and reason is a product of sensation. The world is made up of matter in motion under mathematical laws; and consciousness is one of the aspects or characters of the living organism. There is, then, no separate substantive soul or spirit as the dualist declare*' (Baldwin, 1913:130, *The History of Psychology*).

Dengan cerdas Hobbes juga berhasil meyakinkan bahwa alasan adalah produk (*reason is a product of sensation*) dan sebagaimana layaknya produk-produk lainnya, alasan juga merupakan fakta, yaitu fakta dari sensasi. Merunut tulisan Hobbes, sensasi didasarkan pada proses fisik (*sensation is based upon*

physiological processes) dan bukan pada proses psikis (*psychological processes*). Hobbes menjelaskan bahwa sensasi terjadi karena adanya rangsangan luar (*stirred up by external stimulation*).

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centres of reality, as it had never been done before. The character of the soul as a unitary energy or activity is not lost either in its qualitative sameness with other souls, or in the differentiation of presentations within its own thought. The fruitful but much overworked principle of modern speculative idealism, "identity in difference," had here its earliest and perhaps its soundest exposition. In this connection, the principle of "sameness of indiscernibles" was formulated and applied: the proposition that without real differences, only abstract identity of apprehension is possible. For perception indistinguishable things are identical.[1]

In the theory of the one activity or energy, spiritual in character, pan-psychism is revived; but in a form that emphasises individuality. A "social" character, so to describe it, is introduced into the structure of the world. The difficulty, indeed, with Leibnitz's pluralism would seem to lie on the side of its insufficient unity. The monads lack essential and immanent bonds of union. Their systems of presentations merely duplicate one another. And the doctrine of God, the supreme monad and cause of the unity of the world, remains obscure. Leibnitz further incorporates in his system the genetic and vitalistic points of view of Aristotle, interpreting life, however, in terms of mind, rather than the reverse. In this connection, his theory of unconscious presentations, *petites perceptions*, which have the power of developing into conscious cognitions, is based upon sound observation. Certain of his special

[1] The correlated principle of "difference of discernibles" is equally true: one thing becomes two or many when differences of appearance prevent its identification (see the writer's *Thought and Things*, Vol. II, Chap. XIV, § 8).

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the Pre-Cartesians, Vives and Roger Bacon, focused themselves. As in Descartes a series of rationalistic theories took their rise, so in Gassendi and Hobbes—who directly opposed Descartes personally—the naturalistic and materialistic series began. The dualistic-idealistic philosophy was opposed by the monistic-sensationalistic. *Gassendi* (1592–1655) developed the atomism of Epicurus, but admitted the possibility of a sort of soul-molecule in the primitive matter. He also made reason the function of a special immaterial soul created, as the atoms were, by God.

It was by *Hobbes* (1588–1679) that the two fundamental positions of Cartesianism were alike assailed: the substance view of mind and the rational theory of the origin of knowledge. Mind, said Hobbes, is a function of body, and reason is a product of sensation. The world is made up of matter in motion under mathematical laws; and consciousness is one of the aspects or characters of the living organism. There is, then, no separate substantive soul or spirit as the dualists declare.

Further, sensation is the one conscious event, and upon it knowledge is founded. Sensation is based upon physiological processes, stirred up by external stimulation. Hobbes describes these organic processes, making the heart the centre.

By the compounding of sensations—the process so greatly developed by later sensationalists and associationists—all the modes of intelligence are produced. With sensation goes an original form of impulse—identified with the preservation of life—and also feelings of pleasure and pain. These, like the sensations, are compounded under the laws of association. The whole results in a conception thoroughly naturalistic

Sumber: Baldwin, James Mark. 1913. History of Psychology A Sketch and an Interpretation. London: Watt & CO. Reprint by Forgotten Books, London (2013).
Gambar dibuat oleh Levri Ardiansyah (2016).

Tak pelak, konsep dan teori yang dikemukakan Leibniz dan Hobbes, telah meyakinkan ilmuwan lain bahwa psikologi adalah fakta dan karenanya psikologi adalah ilmu. Apalagi kemudian, para ilmuwan psikologi lainnya dapat menjelaskan bahwa: *the memory ia conceived as a storehouse of facts, dates, or principles, all ready to be taken down or drawn out when required (23. The Element of Intellectual Science). Spirit, in its primary signification, is breath*

In a modern rigorous geometry, the point and the straight line are generally accepted as *undefined notions,* so that the pattern of a branch of mathematics is now:

(1) enumeration of the *primitive concepts* in terms of which all the other concepts are to be defined

(2) *definitions* (i.e. short names for complexes of ideas)

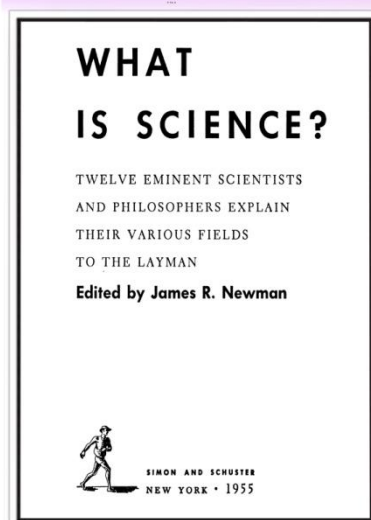
(3) *axioms*, or fundamental propositions which are assumed without proof. It is necessary to show that they are *compatible* with each other (i.e. by combining them we cannot arrive at a contradiction) and *independent* of each other (i.e. no one of them can be deduced from the others). The compatibility is often proved by translating the assumptions into the domain of numbers, when any inconsistency would appear in arithmetical form; and the independence may be proved (as the independence of the parallel axiom was proved) by leaving out each assumption in turn and showing that a consistent system can be obtained without it.

(4) *existence-theorems.* The discovery of irrationals led the Pythagoreans to see the necessity for these. Does there exist a five-sided polygon whose angles are all right angles? The Greek method of proving the existence of any particular geometrical entity was to give a construction for it; thus, before making use of the notion of the middle point of a line, Euclid proves, by constructing it, that a line possesses a middle point. ***The "problems" of Euclid's* Elements *are really existence-theorems.***

(5) ***deductions***, which are the body and purpose of the work.

Sumber: Newman, James R. 1955:39. What is Science? New York: Simon and Schuster. Gambar dibuat oleh Levri Ardiansyah (2016).

Pemikiran filosofis Thales yang terkait dengan administrasi dapat kita temukan pada tulisan Newman (1955) dalam bukunya yang berjudul '*What is Science?*' yaitu:

a. Teori adalah fakta sederhana berdasarkan observasi (*theorem was probably a simple fact of observation*).
b. Substansi adalah air dan dengan demikian substansi dari semua objek material adalah air sehingga *water was the origin of all things.*
c. *The angle in a semicircle is a right angle.* Pemikiran Thales ini berarti jika kita menggabungkan gambar segitiga ke dalam lingkaran sehingga sisi terpanjang segitiga menjadi diameter, maka sudut yang berlawanan (*the opposite angle*) akan selalu merupakan *right angle* dan karenanya *right angle* ini menjadi sudut dalam lingkaran.

Thales of Miletus (640?-546 B.C.) taught that all matter is essentially one, that it consists, in fact, of modifications of water.

Thales is credited with the discovery of the mathematical theorem that "the angle in a semicircle is a right angle." This differs in character from the geometrical facts known to the ancient Egyptians, which had been concerned with areas. Thales seems to have been the first thinker to make lines and curves (which are abstractions) fundamental. For him, the theorem was probably a simple fact of observation. He would be familiar with wall decorations in which rectangles were inscribed in circles: a diagonal of a rectangle is also a diagonal of the corresponding circle, and the right angle formed by two sides of the rectangle is therefore the angle standing on a diameter, i.e., it is the angle in a semicircle.

Sumber: Newman, James R. 1955:25. What is Science? New York: Simon and Schuster. Gambar dibuat oleh Levri Ardiansyah

Teori Thales tentang '*The angle in a semicircle is a right angle'* ini kemudian dinyatakan sebagai benar dengan asumsi '*if equals are added to equals, the sums are equal and the whole are greater than its parts*' (Newman, 1955:26). Hal ini berarti persamaan yang merupakan 2 beda yang dipersamakan dapat dipersamakan kembali 2 kali. Hasilnya adalah persamaan. Dalam perspektif administrasi ini berarti administrator yang melihat suatu kerjasama harus ditata ulang, dapat menciptakan satu kerjasama baru lalu menata 2 bentuk kerjasama yang berbeda ini dengan cara keduanya dipersamakan melalui penanaman nilai tertentu sehingga kedua kerjasama itu menghasilkan persamaan baru yang sesuai dengan kebijakan yang dikehendaki administrator. Berdasarkan perspektif ini, dapat dirumuskan prinsip administrasi yaitu 'Administrasi tidak pernah menghancurkan kerjasama yang telah terbentuk'. Prinsip ini merupakan prinsip anti bunuh diri. Meski Thales tidak membedakan antara hidup dan mati, namun administrasi hidup, tumbuh dan berkembang tidak dengan cara menghancurkan diri sendiri.

Rose (1888:250) dalam bukunya berjudul '*A Popular History of Greece: From the Earliest Period to the Incorporation With the Roman Empire'* menulis bahwa Thales adalah filsuf yang pertama kali menjelaskan tentang *universe* dengan paparannya berupa beberapa hukum alam. Thales berpendapat bahwa penyebab pertama adanya alam semester adalah air. Tulisan Rose ini dapat dibaca pada gambar berikut:

10. It was among the prosperous cities of Ionia that Hellenic philosophy first dawned, and that men first departed from the mythological explanation of nature, and endeavoured to find an explanation of the universe in some fixed law. The earliest of these was Thales, of Miletos, who flourished about 600 B.C. He was the founder of the Ionic school of philosophy, the physical philosophers who endeavoured to find the principle, or first cause (αρχή) in something physical. Thales supposed this first cause to be Water. His pupil, Anaximander, who was born at Miletos, in 610 B.C., was the first to construct spheres, geographical maps, and sundials, and asserted that the earth was of a cylindrical form. Anaximander taught that Fire was the principle, or cause of all; that men had sprung from earth and water mixed, and heated by the sun; that the earth moved; and that the moon received light from the sun, which was a circle of fire about twenty-eight times the size of the earth. He died in 547 B.C. Of the same school was Anaximenes, the son of Erasistratos. He was the pupil and successor of Anaximander, and flourished 544-480 B.C. Anaximenes taught that air was the principle or material cause of all things, and that the sun, moon and stars had been made from the earth, which he considered to be a plane, while the heavens were a solid concave figure, on which the stars were fixed like nails—an opinion then prevalent—whence the proverb, τι εἰ ουρανος ἐμπεσοι, "what if the heavens were to fall?" His pupil, Diogenes, of Apollonia, in Crete, was also a celebrated philosoper, and wrote a treatise on nature.

Sumber: Rose, D. 1888:250. A Popular History of Greece: From the Earliest Period to the Incorporation With the Roman Empire. London: Ward, Lock and Co. Gambar dibuat oleh Levri Ardiansyah (2016).

Seorang ilmuwan Biologi bernama Hegner (1914:212) dalam bukunya berjudul '*The Germ-Cell Cycle of Animals*' pernah mengemukakan istilah '*principal cases*' yang menggambarkan substansi yang dapat diamati pada kasus diferensiasi sel benih seperti ini:

TABLE OF PRINCIPAL CASES OF VISIBLE SUBSTANCES CONCERNED IN DIFFERENTIATION OF GERM CELLS (IN CHRONOLOGICAL ORDER)

NAME OF SPECIES, GENUS, OR GROUP	NAME APPLIED TO SUBSTANCE	AUTHORITY	DATE
Chironomus nigroviridis	Dotterkörnchen	Weismann	1863
Miastor	Dottermasse	Metchnikoff	1866
Moina rectirostris	Richtungskörper	Grobben	1879
Chironomus	Keimwulst	Ritter	1890
Daphnidæ	Paracopulationszelle	Weismann and Ischikawa	1889
Æquorea	Metanucleolus	Haecker	1892
Ascaris megalocephala	Chromatin	Boveri	1892

Sumber: Hegner, Robert W. 1914:212. The Germ-Cell Cycle in Animals. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Meski pertanyaan '*What is the case*' dapat menghasilkan *principal case* yang nantinya akan membimbing pada temuan substansi yang dapat diobservasi, namun pada kasus Ilmu Administrasi, kesulitan utamanya justru terletak pada *case.* Apa *case*-nya? Dapatkah ilmuwan administrasi membuktikan secara ilmiah adanya *case* ini?

Pada periode *pre-logical interpretation*, manusia primitif memang tidak meninggalkan referensi ilmiah tentang administrasi pada kehidupan mereka, namun manusia primitif telah melakukan tindakan administrasi berupa tindakan kerjasama yang menghasilkan *primitive invention (technology)* yang dapat kita baca pada buku karya Espinas (1897) berjudul '*Les Origines de la Technologie*' dengan penekanan pada motif sosial maupun motif agama pada masa awal terbentuknya masyarakat. Para peneliti Perancis kemudian memaknai peristiwa ini sebagai '*The Principle of Collective Representation'* bahwa kehidupan manusia primitif didominasi oleh adanya pemikiran kolektif, pemanfaatan kolektif, dan kewenangan kolektif (Baldwin, 1913:17). *Collective Representation* ini kemudian dikenal sebagai tradisi dan diperjelas oleh Levy-Bruhl (1910) sebagai '*Law of Participation'* dalam bukunya berjudul '*Les Fonctions mentales dans les Societes Inferieures'*. Hukum Partisipasi ini menjadi prinsip-prinsip umum sebagai pedoman untuk menemukan organisasi pada kehidupan manusia primitif. Berdasarkan Hukum Partisipasi ini, *all objects and*

persons participate in the mystic meaning authorised by the collective representation or group tradition, such as that of the totem-animal of the tribe. Dampaknya, objek dan manusia kehilangan identitas dirinya, *their interpenetrate one another* (Baldwin, 1913:18).

Pada periode *unscientific,* Anaximender (566 B.C.), Empedocles (544 B.C.) dan Anaxagoras (500-428 B.C.) membangun pemikiran tentang interaksi yang menghasilkan *Contrasted or Opposing Principles.* Anaximender mengemukakan postulat yang saat itu tak dapat dia buktikan bahwa *unlimited or infinite* merupakan sesuatu yang positif jika berlawanan dengan elemen-elemen yang terbatas (*as a positive something over against the limited elements of things).* Bagi Empedocles, '*love and hate*' adalah *The Principles of Opposition* dan Anaxagoras memberi nama 'Jiwa (*spirit*)' sebagai *The Vital or Formative Principle* yang membedakannya dengan raga (*matter*). Anaxagoras juga menjelaskan bahwa semua fenomena alam merupakan *The Union and Separation of Qualitative Elements (Baldwin, 1913:27).* Merunut tulisan Descartes, *the actual separateness of two subtances* adalah *mind and body* yang keduanya memiliki karakter yang berbeda satu sama lain dan tidak memiliki kemampuan yang memadai untuk melakukan interaksi secara langsung diantara keduanya (*incapable of direct interaction between themselves*). Dengan menempatkan karakters khusus pada dua substansi, para filsuf sebenarnya membangun landasan pemikiran tentang *principle of order and unity* pada benda-benda material, terutama konsep yang dibangun oleh Pythagoras. Baldwin (1913:30) menulis,"*Instead of two substances, having specific characters, this thinker makes mind the basal principle of order and unity in the material no less than in the spiritual world, a conception developed by the Pythagoreans*". Bagi Anaxagoras, pertanyaan mendasarnya adalah '*what is the one principle of all nature?*' '*How can the appearance of interaction between mind and body, in particular cases, be accounted for, despite their absolute separation* ?'. Pertanyaan mendasar tentang '*The One and the Many'* dapat dijawab oleh Pythagoras melalui '*Theories of The Atomists and Pythagoreans*' (Baldwin, 1913:32).

> *"The evolution of the world, including man is described as a single and continuous process. It is due according to Empedocles, to the action of love and hate. Man is the latest and highest product of this development, his immediate cause, according to Anaximender is the action of the sun upon the earth working through lower forms of life, from the fishes upward. According to Empedocles, the plants are still the earlier forms of life, produced by the action of love which overcomes the disorganising forces of hate"* (Baldwin, 1913:32).
> *The air is peopled by Demons, as the popular theosophy declared, agreed by Democritus; they are human shaped images, capable of speaking, and having knowledge of human affairs* (Baldwin, 1913:35).

Pythagoras dengan Sekolahnya Pytahgorean mengajarkan konsep ‘*unity and order’*, berbeda dengan Atomist khususnya Democritus yang mengajarkan konsep ‘multiplicity and disorder’. Pythagoras meyakini pemikiran para filsuf pada masa Ionic bahwa prinsip-prinsip seperti cinta, benci dan semangat menuju *unity and order.* Bagi Puthagoras, alam patuh dan mencerminkan ‘The Laws of Number’ (Baldwin, 1913:36).

Teori tentang ide yang dikemukakan Plato merupakan suatu konsepsi tentang *order and harmony* yang berlandaskan pada pemikiran filosofis yang komprehensif termasuk dengan sejumlah kontradiksi didalamnya. Merunut tulisan Baldwin (1913:36), ‘*The need of carrying out further the conception of order and harmony in a comprehensive philosophy, and of riding it of contradictions, appeared later in the theory of ideas of Plato* ‘.

Plato merumuskan ‘The Two Laws of Association’ yaitu (1) ‘resemblance’ (persamaan) dan (2) ‘contiguity’(persinggungan) untuk menjelaskan tentang ide (*the play of ideas*) (Baldwin, 1913:57).

how can human give the appearance of interaction? Baldwin, 1913:95-96

the course of action – their flows, connections, compotition – was ruled by ‘The Principle of Association’ (Baldwin, v2, 1913: 7).

Difficulties of Inductive Verification

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What is Not Administration?

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Menelusuri Kata '*Cooperation'*

Pada alam terdapat fakta bahwa *cooperation* terjadi dengan sendiri (*automatically cooperated*) seperti terbukti pada atom. Merunut pemikiran tulisan Beckett, Edmund (1880: 120 & 121) pada bukunya berjudul '*On the Origin of the Law of Nature. Second Edition Enlarged'* (London: Society for Promoting Christian Knowledge and New York: Pott, Young, and Co) tercetak '*... as many self-existing powers as there are atoms in the universe, which must have automatically co-operated...*' yang terbaca pada kutipan berupa gambar ini:

Summary.

But all that has little bearing on the origin of the laws of nature though it was necessary to touch upon it so far. What I have professed to show is that the choice of that origin lies between only two possible or conceivable alternatives, into which all others resolve themselves, however they may be disguised by fine language on either side; viz. one creator and maintainer of all the forces or laws of nature, who cannot but possess the infinitely smaller power of foreseeing their consequences, and therefore *ipso facto* intended or designed them; or else, as many self-existing powers as there are atoms in the universe, which must have automatically co-operated (as the materialistic philosophers say themselves) and each chosen its own courses of action with reference to every other atom and all their possible combinations in all possible states, and must have resolved and continually resolve always to adhere to them.

Sumber: Beckett, Edmund. 1880: 120 & 121. On the Origin of the Law of Nature. Second Edition Enlarged. London: Society for Promoting Christian Knowledge and New York: Pott, Young, and Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Definisi *Cooperation* pada Era Industrialisasi

Berdasarkan sejarah pemikiran tentang *cooperation,* konsep *cooperation* terbentuk melalui penelitian ilmiah pada bidang pertanian dan industri dengan tujuan mendapatkan keuntungan yang akan dibagikan secara adil. Dalam buku berjudul '*The History of Co-operation. Vol. 1*' yang diterbitkan pada tahun 1875, Holyoake menulis bahwa *scientific farming matured between 1860-1870.* Beberapa penelitian ilmiah tentang *agricultural cooperation* dicatat dengan rapi oleh William Lawson dalam bukunya yang berjudul '*Ten Years of Gentlement Farning*'. Lawson sendiri melakukan sejumlah percobaan lalu menciptakan *cooperative stores,* mengelola lahan pertanian (*cooperative farm*) dan membangun Nobel Temple, semacam aula tempat berlangsungnya aktivitas pengajaran dan pelatihan, karena Lawson menyadari '*It is a difficult thing for people to act together without training*' (Holyoake, 1906:472).

THE HISTORY OF
CO - OPERATION

BY

GEORGE JACOB HOLYOAKE

Author of
"SIXTY YEARS OF AN AGITATOR'S LIFE," "BYGONES WORTH REMEMBERING," ETC.

REVISED AND COMPLETED

Our greatness will appear
Then most conspicuous, when great things of small,
Useful of hurtful, prosperous of adverse
We can create.—MILTON

VOL. I.—*Pioneer Period, 1812 to 1844. Published by Trübner in 1875.*
VOL. II.—*Constructive Period, 1845 to 1878. Published by Trübner in 1879.*
COMPLETE EDITION.—*Published by T. Fisher Unwin in 1906.*
Reprinted in 1906 and 1908.

LONDON: T. FISHER UNWIN
1, ADELPHI TERRACE. MCMVIII

CONTENTS

PART I

Sumber: Holyoake, George Jacob. 1906. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Pada era revolusi industri, *cooperation* dipahami dalam pengertian sebagai perusahaan yang keuntungannya dibagi secara adil kepada para pekerja, pemilik modal dan konsumen. Dalam konteks ini, *cooperation* adalah kerjasama antara 2 orang atau lebih yang bergabung bersama untuk mencapai tujuan, karena jika bekerja masing-masing tidak dapat mencapai hasil yang diinginkan. Holyoake (1906:4) menulis, '*... cooperation has been common in the sense of two or more persons uniting to attain an end which each was unable to effect singly*' seperti pada gambar berikut:

Co-operation, in the industrial sense of the word, means the equitable division of profits with worker, capitalist, and consumer, concerned in the undertaking. From the commencement of human society Co-operation has been common in the sense of two or more persons uniting to attain an end which each was unable to effect singly.

Sumber: Holyoake, George Jacob. 1906:4. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Holyoake (1906:300) menekankan bahwa pemahaman tentang *cooperation* amat berbeda dengan pengertian *cooperation* yang tertera pada kamus. Dalam pengertian umum, beberapa orang yang bergabung untuk menggulingkan sebongkah batu yang besar merupakan *cooperation* karena masyarakat beranggapan bahwa satu orang tidak dapat menggelindingkan batu besar itu (‘*when several men join in moving a boulder, because one alone could not stir it, it is called cooperation*’). Padahal, merunut pemikiran Holyoake, sebuah tongkat dapat membantu satu orang itu hingga seorang diri dia dapat menggelindingkan batu.

300 HISTORY OF CO-OPERATION

Co-operation is a very different thing from Co-operation as defined in dictionaries. When several men join in moving a boulder, because one alone could not stir it, it is called Co-operation. In this way, a bundle of sticks bound together present a force of resistance which separately none could pretend to, and in this sense the sticks are as much co-operators as the men. But industrial Co-operation means not only a union for increasing mechanical force, but for obtaining the profit of the transaction, and having it equitably distributed among those who do the work.

Sumber: Holyoake, George Jacob. 1906:300. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Kalimat yang senada dengan Holyoake ini, kembali diungkap oleh Waldo (1955:5), ‘*when two men roll a stone which neither could roll alone, they have cooperated’*. Hanya saja dalam bukunya Waldo menuliskan bahwa 2 orang yang menggelindingkan batu itu adalah contoh kerjasama. Meski kini kita tentu saja telah memahami bahwa 2 manusia yang menggelindingkan sebongkah batu

besar tidak memerlukan administrasi, apalagi ilmu administrasi. Mereka tidak memerlukan tata usaha untuk menggelindingkan batu. Mereka tidak perlu terlebih dahulu menyusun perencanaan yang matang apalagi berdasarkan *high rationality* dan *scientific methods*. Mereka juga tidak perlu membicarakan tujuan bersama, cukup gelindingkan saja batu itu dan biarkan meluncur hingga berhenti dengan sendirinya. Mereka berdua hanya perlu hadir bersama (*co-present*), komunikasi singkat, bekerja bersama dan selesai bersama. Akan lain peristiwanya jika sebongkah batu itu adalah batu giok. Tentu saja mereka berdua tidak akan menggelindingkannya begitu saja. Jika mereka berdua memiliki niat yang baik, untuk mendapatkan keuntungan, mereka akan mulai berpikir bagaimana caranya menjual batu giok itu dan kepada siapa. Dalam peristiwa ini mereka menggunakan ilmu ekonomi. Jika niat baik itu untuk penataan kekayaan di masa depan, mereka akan mulai membangun kesepakatan yang tertuang dalam aturan bersama, melibatkan manusia lainnya untuk membantu dan membentuk organisasi sebagai wadah bersama, tempat mereka berdua menata segala sesuatunya.

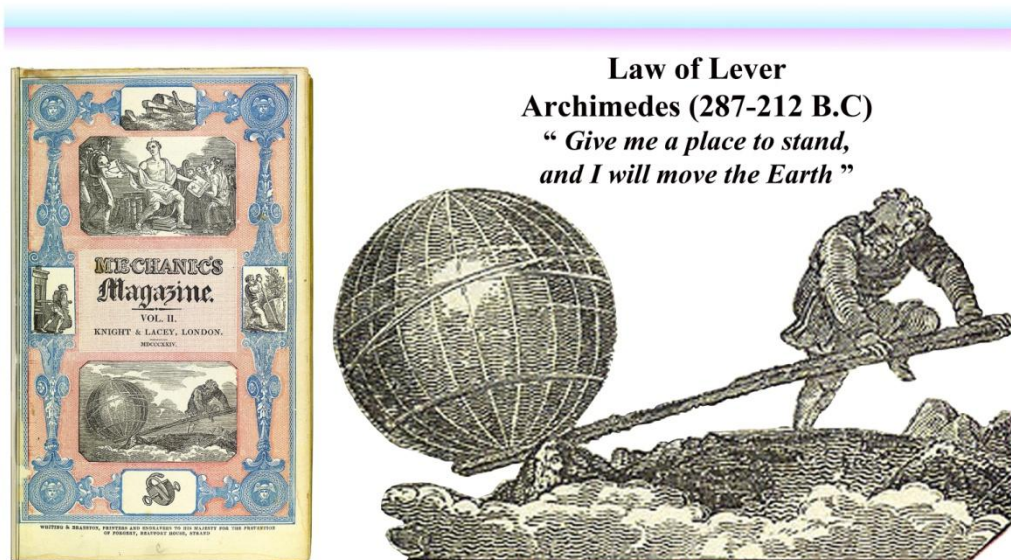
The Meaning of Administration: Cooperative Rational Action

Up to this point we have invariably dealt with the expression *public administration* and at no time with the noun *administration* alone. An appropriate next step is to examine into the meaning of the noun alone, and then into that of the adjective.

We may proceed by analogy: Public administration is a species belonging to the genus administration, which genus in turn belongs to a family which we may call *cooperative human action*. The word *cooperative* is here defined in terms of results: human activity is cooperative if it has effects that would be absent if the cooperation did not take place. Thus—to take a frequently used illustration—when two men roll a stone which neither could roll alone, they have cooperated. The result, the rolled stone, is the test. But what if one of the two men has lent his effort unwillingly, perhaps under threat of bodily harm from the other: Is this cooperation? It is, in the meaning here assigned. Cooperation as ordinarily used suggests willingness, even perhaps enthusiasm; so we are straining the customary meaning. But the English language seems to have no word better adapted to the meaning here desired. The expression *antagonistic cooperation*, incidentally, is sometimes used in the social sciences to distinguish unwilling from willing cooperation.

Sumber: Waldo, Dwight. 1955:5. The Study of Public Administration. Garden City, New York: Doubleday and Company Inc. Gambar dibuat oleh Levri Ardiansyah (2016).

Cerita tentang manusia dan batu ini, ternyata bukan contoh yang diceritakan begitu saja tanpa sumber ilmiah yang monumental. Argumen Holyoake tentang satu orang yang dapat menggelindingkan batu dengan bantuan sebuah tongkat sebenarnya telah ditunjukan oleh Archimedes (287-212 B.C) dengan ilustrasi tongkat pengungkitnya yang terkenal sebagai slogan '*Give me a place to stand, and I will move the Earth*'. Knight & Lacey (1824) memuat gambar Archimedes seorang diri sedang mengungkit Bumi sebagai gambar sampul pada majalah *Mechanic Magazine* Vol. II. Ilustrasi ini menunjukan bahwa satu manusia dapat bekerjasama dengan alat hasil karya intelektual (*intellectual property*), sehingga

makna *cooperation* yang sejati adalah kerjasama yang dapat terjadi pada interaksi manusia dengan manusia, manusia dengan alat dan manusia dengan alam. Hanya saja, perkembangan awal konsep *cooperation* lebih banyak dikaji dalam konteks *social activity.* Kala itu, fakta adanya kerjasama diantara benda-benda material pada alam dianggap sebagai bukan ranah Ilmu Administrasi, melainkan ranah Ilmu Fisika.

Sumber gambar: Knight & Lacey, 1824. Mechanics Magazine vol II. Published in London. https_www_math_nyu_edu, diolah oleh Levri Ardiansyah (2016).

Ilustrasi seorang Archimedes sedang bekerjasama dengan tongkat pengungkit ini memang memiliki dasar ilmiah yang terkenal sebagai *Law of Lever.* Intinya, Archimedes menemukan hukum tentang pusat gravitasi pada beragam bentuk, termasuk parabola. Dengan cara mengungkit batu menggunakan tongkat, energi yang kita alirkan pada tongkat menyebabkan batu terangkat hingga pusat gravitasinya bergeser dan batu dapat dipindahkan ke arah mana saja dengan mudah. Inilah yang dimaksud Holyoake (1906:300) dengan kalimatnya '*In this way, a boundle of sticks bound together present a force resistance which separately none could pretend to, and in this sense the sticks are as much cooperators as the men*' Sedwick & Tyler (1917:102) dalam bukunya berjudul '*A Short History of Science*' menjelaskan *mechanics of Archimedes* seperti pada gambar berikut:

A

SHORT HISTORY OF SCIENCE

BY

W. T. SEDGWICK AND H. W. TYLER
Professor of Biology *Professor of Mathematics*
at the
Massachusetts Institute of Technology
Cambridge

The history of science should be
the leading thread in the history of civilization.

New York
THE MACMILLAN COMPANY
1917

MECHANICS OF ARCHIMEDES. — In mechanics Archimedes is a pioneer, giving the first mathematical proofs known. In two books on Equiponderance of Planes or Centres of Plane Gravities, he deals with the problem of determining the centres of gravity of a variety of plane figures, including the parabolic segment. A treatise on levers and perhaps on machines in general has been lost, as also a work on the construction of a celestial sphere. A sphere of the stars and an orrery constructed by him were long preserved at Rome. He describes an original apparatus for determining the angular diameter of the sun, discussing its degree of accuracy.

The lever and the wedge had been practically known from remote antiquity, and Aristotle had discussed the practice of dishonest tradesmen shifting the fulcrum of scales towards the pan in which the weights lay, but no previous attempt at exact mathematical treatment is known.

Sumber: Sedgwick, W.T. & Tyler, H.W. 1917:102. A Short History of Science. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Pada sejarah Mesir Kuno, juga terdapat kerjasama antara 2 orang yang menuntun seekor kerbau (fig. 57) dan tiga orang yang bekerjasama menaklukan seekor kerbau untuk mereka jadikan sebagai hewan korban (fig. 56). Petrie (1909:51-52) dalam bukunya berjudul '*The Arts and Crafts of Ancient Egypt*' menampilkan gambar tersebut sebagai berikut:

In fig. 56 is a group of men dragging down an ox for sacrifice.

scene of an ox-herd (fig. 57) shows quiet motion, with the unusual turning of the head.

Sumber: Petrie, W.M. Flinders. 1909:51-52. The Arts and Crafts of Ancient Egypt. Edinburg & London: T.N. Foulis. Gambar dibuat oleh Levri Ardiansyah (2016).

Jika contoh yang diberikan Waldo menunjukan kerjasama manusia dengan alat yang telah tersedia di alam, dan gambar Archimedes dengan pengungkitnya menunjukan kerjasama manusia dengan alat hasil karya intelektual manusia,

maka gambar yang ditampilkan Petrie menunjukan kerjasama manusia dengan makhluk hidup lainnya.

Pada era industrialisasi, *cooperation* merupakan kekuatan baru yang terinspirasi dari adanya hubungan persaudaraan, dengan metode yang digunakan bersumber dari ekonomi dan prinsip yang melandasinya adalah keadilan. Dengan hadirnya *cooperation,* para buruh yang sebelumnya tidak memiliki kendali sama sekali terhadap masa depannya sendiri, dengan hadirnya *cooperation* para buruh menjadi dapat mengendalikan sendiri masa depannya. Holyoake (1906:179) menulis bahwa hanya *cooperation* yang memberi kendali kepada buruh terhadap keuntungan yang akan diraih dan dinikmati sebagai hasil dari pekerjaannya.

Co-operation is a new force of industry, whose inspiration is fraternity, whose method is economy, whose principle is equity. Before the days of Co-operation, labour had no control over its own fortune or future. Trade Unions have given the workman some control over the wages of labour. It is Co-operation alone which gives him control over the profits of his work.[1]

Sumber: Holyoake, George Jacob. 1903:179. The Co-operaiive Movement Today. London: Methuen & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

St. Simon pada tahun 1817, mempublikasikan tulisannya berjudul '*Industry*' yang dinyatakannya sebagai industri yang suci karena memberi pelayanan untuk memperbaiki kondisi kehidupan orang-orang miskin (*was holy, for it serves to ameliorate the condition of the poor*). St. Simon juga merumuskan sistem industri yang terkenal sebagai formula '*to each according to his capacity; to each capacity according to its works* yang berarti bahwa setiap anggota komunitas harus menunjukan kinerja terbaiknya dan industri akan memberi penghargaan sesuai kinerja yang telah ditunjukan masing-masing anggota'.

He took no part in the destructive movement of the French Revolution, but spent nearly all his fortune in instituting "A Grand Establishment of Industry and a School of Scientific Perfection." In 1814 he published a scheme for the "Reorganisation of Europe." In 1817 (a notable year, as will appear in amother chapter), with English social aspirants, St. Simon published his work on "Industry," upon the organisation of which he never ceased to write. "Industry," he declared, "was holy, for it serves to ameliorate the condition of the poor." His system was known by the formula—"To each according to his capacity: to each capacity according to its works"; which meant that the community would expect from each member the best he was able to do, and would reward him according to what he did.

Sumber: Holyoake, George Jacob. 1906. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

The Instinct of Cooperation

Instinct atau naluri adalah sumber perasaan, keinginan dan harapan (Darwin, 1971, *The Drescent of Man*). Merunut pemikiran Freud, naluri yang terdiri dari naluri hdiup (*eros*) dan naluri kematian (*thanatos*) adalah suatu energi tersembunyi yang berfungsi mendorong seseorang melakukan strategi tertentu untuk mencapai tujuan. Berdasarkan persektif administrasi, naluri adalah suatu energi tersembunyi berupa keinginan (*want*) yang berfungsi sebagai motivasi dan menjadi kemauan untuk melakukan tindakan kerjasama. Energi tersembunyi ini adanya didalam diri manusia sebagai *deep intrapsychic energy* yang memiliki sifat '*the self*' yaitu sifat 'maunya sendiri'. Dalam kalimat yang sederhana, energi tersembunyi ini adalah *the self,* yang salah satu rupanya adalah keinginan. Berdasarkan Psikologi, keinginan adalah motif atau alasan melakukan tindakan, sehingga keinginan berfungsi sebagai motivasi, yang sumber rangsangannya (*stimuly*) dari luar tubuh, yaitu pengalaman (*experience*). Pertemuan antara keinginan dengan pengalaman inilah yang dapat menjadi kemauan (*will*) yaitu kesiapan untuk melakukan tindakan atau tidak melakukan tindakan. Merunut pemikiran Holyoake (1906:587) *the instinct of cooperation is self-help,* sebagaimana dapat dibaca pada gambar berikut:

It was stated by the editor of the *Co-operative Magazine* in 1826, in very explicit terms, that "Mr. Owen does not propose that the rich should give up their property to the poor; but that the poor should be placed in such a situation as would enable them to create *new wealth* for themselves."[1] This is what Co-operation is intended to do, and this, let us hope, it will do.

The instinct of Co-operation is self-help.

Sumber: Holyoake, George Jacob. 1906:587. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Self-help berarti manusia seharusnya dapat menolong dirinya sendiri, karena manusia memiliki naluri *self-help*. Namun realitasnya tidak demikian, banyak manusia yang tidak mampu menolong dirinya sendiri karena 2 sebab yaitu (1) tidak tumbuhnya kesadaran; dan (2) adanya faktor di luar tubuh manusia yang secara sistematis mengekang kehadiran naluri *self-help.* Dalam *cooperation, self-help* ini penting karena adanya manusia yang menerapkan '*Brazen Law of Wages'* yang mengikat pekerja terus-menerus melayani sebagai budak dan mengekang *self-help* hingga tidak mungkin dapat terjadi (Holyoake, 1903:182). Oleh karena ini, *self-help* harus dibantu agar terwujud menjadi kekuatan berupa *power of self-existence.* Caranya adalah dengan menata *self-help* melalui penanaman nilai-nilai tertentu secara terorganisir. Metode ini dinamai sebagai *organised self-help* yang dipaparkan secara singkat oleh Holyoake (1906:589) sebagai berikut:

As the power of self-existence in nature includes all other attributes, so self-help in the people includes all the conditions of progress. Co-operation is organised self-help—that is what the complexion of the future will be.

Sumber: Holyoake, George Jacob. 1906:589. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Pada masa Sebelum Masehi, naluri *self-help* merupakan kekhawatiran hidup seorang diri pada saat kematian dan kehidupan setelah kematian. Pada 814 B.C. Lycurgus, Sang Pemimpin Sparta, semasa hidupnya memiliki kekhawatiran hidup seorang diri setelah kematiannya, sehingga menjadi pelajaran yang dikenal sebagai *Lacedemonian.* Begitu juga terjadi pada Raja dan Ratu Mesir Kuno. Temuan butiran gandum pada makam mumi di Mesir menunjukan bahwa naluri *self-help* telah menjadi prinsip *vitality and power of germination,* yaitu gandum sebagai vitalitas dan kekuatan untuk tumbuh pada kehidupan ribuan tahun setelah kematian. Butiran gandum adalah material yang membantu tumbuh kembangnya naluri *self-help,* sehingga pada waktunya hidup kembali, sang

mumi dapat menolong dirinya sendiri dengan cara mengkonsumsi butiran gandum.

THE

CO-OPERATIVE MOVEMENT TO-DAY

BY

GEORGE JACOB HOLYOAKE

Author of "The History of Co-operation in England," "The Rochdale Pioneers," "Self-Help One Hundred Years Ago"

"Is it instinct? Is it nature?
Or some freak or fault of chance—
Which our liking or disliking
Limits to a single glance?"
CHARLES SWAIN

THIRD EDITION

METHUEN & CO.
36 ESSEX STREET, W.C.
LONDON
1903

FAMOUS PRECURSORS OF CO-OPERATION. 3

Lycurgus (B.C. 814) is credited with having governed Sparta as successfully as Minos did Crete, and on similar principles. The only aristocracy of Sparta was one of merit. The dread of living for himself alone was the earliest lesson imprinted on the mind of a Lacedemonian. That "dread" has long been extinct in Christendom, if it ever came here at all. Thus the reader will see that the Co-operative idea is no new-fangled conception which needs to apologize for its novelty. It has an ancient pedigree, and though long intervals have occurred when the principle appeared to be dead, yet, like the grains of wheat found in the coffins of Egyptian mummies, it has possessed vitality and power of germination after thousands of years.

Sumber: Holyoake, George Jacob. 1903:3. The Co-operaiive Movement Today. London: Methuen & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

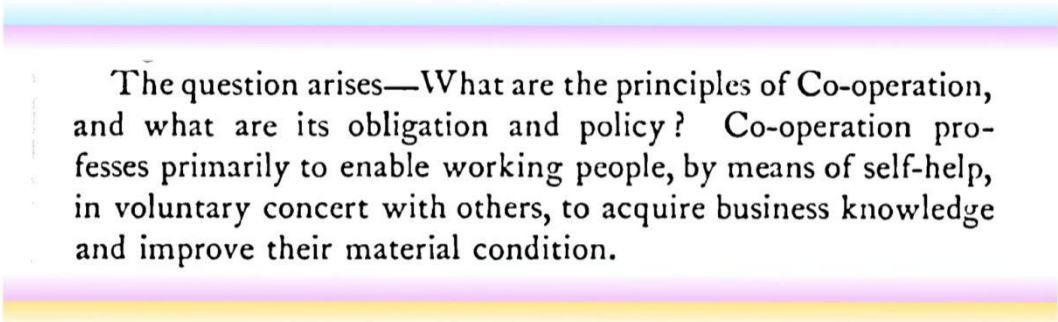
The Principles of Cooperation

Pada prinsipnya, *cooperation* adalah tindakan bekerja bersama (*act together*) yang memungkinkan *self-help* tumbuh berkembang berdasarkan keadilan, persamaan dan kepercayaan. Oleh karena ini, prinsip-prinsip *cooperation* terdiri dari: (1) *act together;* (2) *made self-help possile;* (3) *equity;* (4) *equality* dan (5) *trust.*

Pertama, a*ct together* atau *working together*
Kedua, *made self-help possible;*

Ketiga, *equity*

Keempat, *equality*

Equity is not the same thing as equality. Equality may be produced by bringing down the high to the level of the low, while it is the nature of equity to elevate the low to the eminence of the high.

Sumber: Holyoake, George Jacob. 1903:186. The Co-operaiive Movement Today. London: Methuen & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Kelima, *trust,* yaitu kepercayaan yang terorganisir dalam perserikatan. Rotter (1967:653) mendefinisikan kepercayaan sebagai *generalized expectancy,* sehingga pernyataan-pernyataan lisan maupun tulisan dari orang lain dapat dijadikan dasar kepercayaan. Merunut pemikiran Dawes (1990), secara psikologis, kepercayaan merupakan pengharapan dari tindakan kooperatif seorang mitra. Dengan adanya *trust,* orang akan mau bekerjasama dengan orang lain yang terpercaya. Bentuknya adalah perserikatan, yang dibentuk oleh *truster* dengan cara mengikat pihak-pihak yang memiliki kepentingan yang sama dalam suatu perserikatan (*trustee*). Tentu saja seleksi ketat diberlakukan untuk dapat menjadi anggota perserikatan, sehingga anggota perserikatan mau bekerjasama dengan anggota perserikatan lainnya. Berdasarkan prinsip ini, *truster* mengikat *trustee* untuk melakukan tindakan T karena adanya keyakinan dalam diri *truster* sendiri bahwa kepentingan *trustee* akan terpenuhi melalui konsekuensi tindakan T. Sosiolog yang berpandangan seperti ini diantaranya adalah Coleman (1990) dalam bukunya berjudul '*Foundations of Social Theory*' dan Hardin (1992) dalam tulisannya yang dimuat pada jurnal '*Politics and Society 21*' dengan judul 'The Street-Level Epistemology of Trust'. Salah satu bentuk kepentingan adalah persaudaraan (*fellowship*) sebagai salah satu elemen yang esensial dari kontrak sosial..

Dalam perkembangannya, prinsip *trust* ini menjadi prinsip kesetiaan, karena kepercayaan dari seorang *truster* sesungguhnya merupakan penilaian terhadap kesetiaan *trustee.* Artinya, seorang A mau bekerjasama dengan seorang B dikarenakan A percaya bahwa B adalah orang yang setia dengan perjanjian kerjasama yang telah mereka sepakati bersama. Keduanya akan konsisten bekerjasama karena kerjasama itu konsisten dengan kepentingan masing-masing dan juga kepentingan mereka berdua. Pada akhirnya, kepercayaan *truster* maupun kerjasama *trustee,* didasarkan pada kepentingan *trustee.* Oleh karena ini, Pruitt dan Kimmel (1977) meyakini bahwa kepercayaan dapat menyudutkan kerjasama pada situasi kritis. Kerjasama terjadi jika seseorang yang memang telah memiliki keinginan dan kemauan untuk bekerjasama dapat mempercayai orang lain dengan harapan orang lain itu tidak bertindak eskploitatif.

Pertanyaan mendasar tentang prinsip *trust* ini adalah dimanakah seharusnya kita menempatkan kepercayaan agar tercipta *cooperation*? Apakah perserikatan didasarkan pada kepentingan pihak *trustee,* ataukah pada kepentingan pihak *truster?* Andai *truster* adalah pemilik modal dan *trustee* adalah para pekerja, dapatkah *cooperation* terbentuk melalui perserikatan yang didasarkan pada kepentingan pemilik modal?

Holyoake (1906:649) menekankan prinsip *cooperation* pada tindakan pemilik modal yang memberi kesempatan kepada para pekerja, agar menyadari *self-help,* dalam berinteraksi yang teratur sedemikian rupa, sehingga para pekerja mendapatkan pengetahuan bisnis dan sejalan waktu kekayaan mereka akan meningkat.

> The question arises—What are the principles of Co-operation, and what are its obligation and policy? Co-operation professes primarily to enable working people, by means of self-help, in voluntary concert with others, to acquire business knowledge and improve their material condition.

Sumber: Holyoake, George Jacob. 1906:649. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Pada dasarnya, konsep *cooperation* ini dibangun bersumberkan pada Ilmu Ekonomi dan Ilmu Politik. Mercer (1921) menulis bahwa dengan bergabungnya para produsen dan konsumen bersama-sama dalam asosiasi yang mereka kelola

THE PRINCIPLES OF THE EARLY CO-OPERATORS.

The economic and political theory of co-operation, as understood by the disciples of Owen, the Rochdale Pioneers, and the Christian Socialists, is perfectly logical and absolutely sound. By joining together as producers and consumers in self-governing associations men and women are to re-organise society on an entirely new basis. As a consequence of land being owned collectively by the community as a whole the rent-charge will be got rid of.

Sumber: Mercer, T.W. Cooperative Politics and Cooperative Progress, in Cooperative Press Agency. 1921:79. The People's Year Book and Annual of the English and Scotish Wholesale Societies. Manchester: The Co-operative Wholesale Society. Gambar dibuat oleh Levri Ardiansyah (2016).

sendiri, menunjukan bahwa mereka sebenarnya tengah melakukan penataan ulang masyarakat berdasarkan pada prinsip yang sama sekali baru, yaitu prinsip yang menyebabkan tanah dimiliki secara kolektif oleh komunitas-komunitas tertentu.

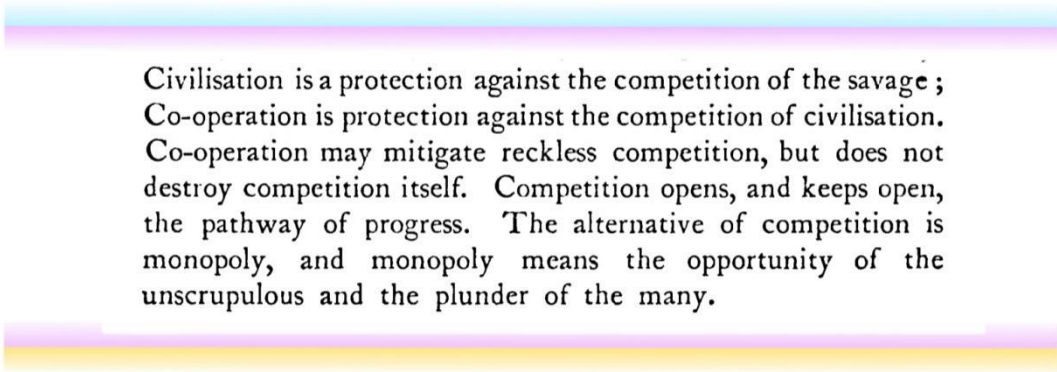
Theory of Cooperation

Prinsip-prinsip *cooperation* dibangun oleh para pencetus gerakan *cooperation* berdasarkan pandangan mereka bahwa uang, modal dan para pemilik modal mengendalikan dunia dan para pekerja tidak dianggap sama sekali. Mereka melihat contoh nyata pada kehidupan pemancing dan pemodal. Pemancing hanya dapat memancing 10 ekor ikan sehari dan pemodal yang melihat peluang bisnis dengan membelikan jala untuk disewakan kepada pemancing, sehingga dia akan mendapatkan 200 ikan dalam satu hari. Pemodal akan mendapatkan 190 ikan sebagai manfaat dari jala dan pemancing tetap mendapatkan 10 ikan. Jika pemodal membeli lokasi sungai, maka pemancing tidak dapat memancing ikan lagi. Para pencetus gerakan *cooperation* menyikapi keadaan yang mempersulit pemancing ini dengan melihat sisi positif yaitu adanya potensi untuk menumbuhkan *self-help* dalam diri pemancing sehingga dia terpaksa berpikir untuk membeli jala sendiri, bagaimanapun caranya. Inilah yang dipandang dapat memicu tumbuhnya *self-help.* Realitas inilah yang menjadi landasan dirumuskannya teori *cooperation.*

The pioneers of this movement, seeing that capital governed the world, and workmen had none, bethought themselves how they might acquire it. They saw that capital was an excellent thing. A savage can catch only ten fish a day. The capitalist lends him a net and he catches 200, when the capitalist takes 190 of the fish for the use of the net. That is a good thing for the capitalist. But in due time the capitalist buys the river, when he is able to—and when it suits his purpose he does—exclude the savage from catching fish any more. That is a bad thing for the savage. The policy for the savage to pursue is to get capital and buy his own net, and keep all the fish he catches. This is the theory of Co-operation.

Sumber: Holyoake, George Jacob. 1903:181-182. The Co-operaiive Movement Today. London: Methuen & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Cooperation and Competition

"What is Co-operation? some may inquire." Certainly many did make the inquiry. The answer he gives is this: "Co-operation in its fullest sense is the opposite of Competition; instead of competing and striving with each other to procure the necessaries of life, we make common cause, we unite with each other, to procure the same benefits."

Sumber: Holyoake, George Jacob. 1906:302. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Cooperation is the opposite of competition. Kompetisi merupakan konsep yang utama dalam Ilmu Ekonomi. Kompetisi adalah persaingan diantara pembeli dan diantara penjual yang masing-masing berusaha memenuhi kepentingannya sendiri. Kompetisi mensyaratkan adanya beragam pembeli dan beragam penjual yang masing-masing memiliki sikap untuk saling berebut dan bertanding demi meraih kepuasan atau keuntungan maksimal. Pembeli berkompetisi dengan pembeli lainnya dan penjual berkompetisi dengan penjual lainnya. Merunut pemikiran J.S. Mill, kompetisi merupakan lawan dari monopoli, pemungutan pajak dan kerjasama.

Ketika Adam Smith menggunakan istilah kompetisi, Smith mengartikan kompetisi sebagai proses menurunkan harga hingga mendekati biaya produksi, sedangkan upah dan keuntungan terpaksa mendekati tingkat yang wajar. Kompetisi semacam ini harus memenuhi syarat yang dinamai Smith sebagai 'kebebasan yang sempurna', artinya tidak ada hambatan mobilitas, setiap orang bebas mengejar kepentingannya sendiri dengan caranya sendiri, serta memiliki kebebasan bersaing dengan siapa saja (Kuper, A & Kuper, J, 2000: 149). Ekonom lain seperti Pareto, memandang kompetisi bukan sebagai proses melainkan sebagai salah satu jenis pasar, yaitu pasar yang setiap pelaku ekonominya adalah penerima harga (*price taken*) yang tidak mampu mempengaruhi harga barang yang diperjualbelikan. Kompetisi jenis ini dikenal sebagai 'kompetisi yang sempurna' karena benar-benar sempurna menjadikan satu penjual tidak dapat menentukan harga sehingga monopoli tidak mungkin terjadi, begitu juga monopsoni (satu pembeli yang menentukan harga) dan oligopoli (di pasar hanya terdapat sedikit penjual).

Di dalam *cooperation,* para pembeli dan penjual bersatu untuk mendapatkan manfaat yang sama, mereka sama sekali tidak memiliki kebebasan menentukan harga karena mereka memang diatur untuk tidak dapat menentukan harga. *Cooperation* yang semacam ini tak ubahnya sama dengan 'kompetisi yang sempurna'.

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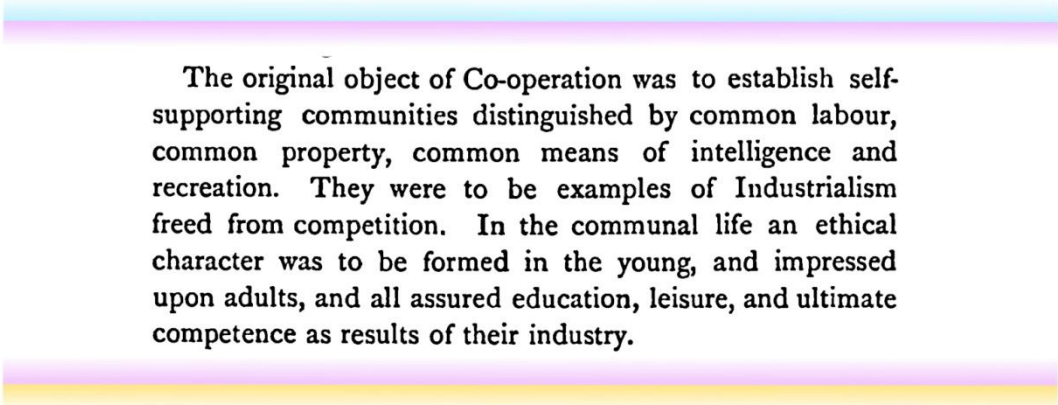
Civilisation is a protection against the competition of the savage; Co-operation is protection against the competition of civilisation. Co-operation may mitigate reckless competition, but does not destroy competition itself. Competition opens, and keeps open, the pathway of progress. The alternative of competition is monopoly, and monopoly means the opportunity of the unscrupulous and the plunder of the many.

Sumber: Holyoake, George Jacob. 1906:674. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

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The Original Object of Cooperation

Objek *cooperation* yang sesungguhnya adalah komunitas, yaitu *self-supporting community* yang dibedakan berdasarkan entitas tertentu yaitu (1) kelompok yang anggotanya menghuni ruang fisik atau wilayah geografis yang sama (*common property,* khususnya lokasi tanah); (2) kelompok yang anggotanya memiliki ikatan atau interaksi sosial tertentu yang menjadikannya sebagai entitas sosial tersendiri (seperti kelompok buruh); dan (3) kelompok yang anggotanya memiliki kesamaan pandangan dan pemikiran (*common means of intelligence*).

The original object of Co-operation was to establish self-supporting communities distinguished by common labour, common property, common means of intelligence and recreation. They were to be examples of Industrialism freed from competition. In the communal life an ethical character was to be formed in the young, and impressed upon adults, and all assured education, leisure, and ultimate competence as results of their industry.

Sumber: Holyoake, George Jacob. 1903:1. The Co-operaiive Movement Today. London: Methuen & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Tujuan komunitas bersifat internal, seperti pembinaan hubungan baik antar-anggota (Azarya, 1984). Tujuan ini yang membedakan komunitas dengan organisasi formal, yang memiliki tujuan eksternal. Merunut pemikiran Warren (1973) dalam bukunya berjudul '*The Community in America*', komunitas memiliki beberapa fungsi diantaranya: (1) pemenuhan kebutuhan ekonomi dasar; (2) sosialisasi; (3) kontrol sosial; (4) partisipasi dan (5) perilaku saling mendukung.

Perspektif Robert Owen

Tokoh yang dianggap sebagai pencetus konsep *cooperation* adalah Robert Owen yang lahir pada 14 Mei 1771 di Newtown, Montgomeryshire, yang kemudian terkenal sebagai Robert Owen of New Lanark. Owen juga terkenal sebagai tokoh yang sering melakukan observasi dan eksperimen, termasuk observasi dan eksperimen tentang *cooperation.* Holyoake (1906:32) menulis tentang Owen sebagai berikut: '*He attained distinction by two things: the observance of truth in conduct and experiment in practice*'. Pada usia produktifnya, Owen bekerja sebagai manajer pada perusahaan katun yang berlokasi di Manchester.

CHAPTER IV

HOW CO-OPERATION ITSELF BEGAN

"All around was dim,
Yet his face glowed with light revealed to him."
GEORGE ELIOT, *Jubal.*

THE originator of Co-operation was Robert Owen, born so far back as 1771, a year before Fourier.

Sumber: Holyoake, George Jacob. 1906: 32. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Hal menarik dari Owen adalah pikiran-pikirannya yang filosofis tentang *cooperation* sebagai *science of social improvement* hingga dapat diterapkan secara terukur pada dunia industri. Imbalan yang akan diterima oleh masing-masing pihak yang bekerjasama ditentukan oleh '*the willing cooperation of intelligence*'. Istilah '*willing cooperation*' ini juga digunakan oleh Waldo (1995:5) ketika memaparkan tentang '*antagonistic cooperation'* yang terkadang dipakai di dalam Ilmu Sosial untuk membedakan '*unwilling from willing cooperation*'.

Mr. Owen will be accorded the distinction of being a philosopher who devoted himself to founding a Science of Social Improvement—a philanthropist who gave his fortune to advance it. Association, which was but casual before his day, he converted into a policy and taught it as an art. He substituted Co-operation for coercion in the conduct of industry—the willing co-operation of intelligence certain of its own reward, for sullen labour enforced by the necessity of subsistence, seldom to be relied on and never satisfied.

Sumber: Holyoake, George Jacob. 1906:50. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Dalam memahami makna *cooperation,* Owen mendasarkan keyakinannya pada 4 konsiderasi yang bersifat universal yaitu (1) *true;* (2) *right*; (3) *humane* dan (4) *useful* bahwa keempatnya merupakan motivasi yang menggerakan manusia untuk mau bekerjasama. Melalui perspektif ini, Owen memahami *cooperation* sebagai sistem bagi industri yang berlaku secara universal, persamaan *privileges,* dan distribusi yang adil dari kekayaan yang baru terkumpul.

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To incite men to action he relied on four considerations, namely, that what he proposed was :—

1. True ; 2. Right ; 3. Humane ; 4. Useful.

It was understood very early[1] that Co-operation was proposed as a system of universal industry, equality of privileges, and the equal distribution of the new wealth created.

Sumber: Holyoake, George Jacob. 1906:56. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

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"I have," says Mr. Owen, "attempted two decisive measures for the general improvement of the population.

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The one was a good and liberal education for all the poor, without exception on account of their religious or political principles;

"The next measure was to promote the amelioration of the condition of the productive classes by the adoption of superior arrangements to instruct and employ them.

Sumber: Holyoake, George Jacob. 1906:57-58. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Kontribusi pemikiran dan perjuangan Owen memantapkan konsep *cooperation* ini menjadikan Owen kemudian dikenal sebagai '*The Father of Cooperation*'.

Owen's Administration as Cooperation

Profesor F.W. Newman, anggota kehormatan 'London Association for Promotion of Co-operation' yang didirikan pada 1863 pada akhirnya menyatakan perasaan senangnya mengakui '*Mr. Owen's administration of the New Lanark Mills' as cooperation*, meskipun sebelumnya Prof Newman tidak suka pada sikap Owen yang melindungi pekerja (*petronised the workman*). Hal ini karena Prof. Newman beranggapan bahwa melindungi pekerja adalah bentuk nyata dari 'Kasta Pelindung' yang merupakan salah satu anjuran komunisme yang paling terkenal dan bersumber dari karya Plato yang berjudul *Republic*. Tetapi, Owen dapat membuktikan bahwa konsepnya tentang keadilan ternyata memang direalisasikan dalam bentuk pembayaran yang adil. Holyoake (1906:591) mengungkapkan cerita ini sebagai berikut:

Mr. Newman said, "I would fain pass off" Mr. Owen's administration of the New Lanark Mills "as Co-operation." Surely I would not. Mr. Newman said, "Mr. Owen patronised the workman." Certainly—that is exactly what he did, and this is what I do not like. It was at best but a good sort of despotism, and had the merit of being better than the bad sort. He proved that equity, though paternally conceded, *paid*, which no manufacturer had made publicly clear before.

Sumber: Holyoake, George Jacob. 1906:591. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Sikap Prof. Newman yang mengakui '*Mr. Owen's administration of the New Lanark Mills' as cooperation* inilah dikutip oleh banyak ilmuwan lainnya dan dianggap sebagai sikap ilmiah bahwa '*administration as cooperation*'. Diantara para ilmuwan itu adalah Prof. Dwight Waldo (1955:54) yang menyatakan bahwa '*administration has been defined as cooperation*'.

Cooperative Politics

Merunut pemikiran Mercer (1921), *cooperative politics* merupakan perspektif tentang pembangunan sistem produksi *for use and not for sale* yang mendorong para *cooperator* menghancurkan kapitalisme.

The gospel of co-operation was acceptable to men and women in all parts of the United Kingdom when it was first preached because all who saw that " the root evil " in society was " the system of buying cheap and selling dear for a money profit " perceived that the way of escape from wage-slavery was by the development of a new system of production for use and not for sale. Landlordism, Capitalism, and Profiteering were the three monsters that the co-operator determined to destroy. He saw that the owners of land and capital were able to extort rent and interest from the community while private traders and manufacturers had power to exploit the consuming masses by adding profit to the price of all the people ate, or wore, or used. Moreover, the private ownership of land and capital, by dividing men into classes of rich and poor, masters and servants, idlers and workers, destroyed the unity of human society and set the hand of every man against that of his brother.

Sumber: Mercer, T.W. Cooperative Politics and Cooperative Progress, in Cooperative Press Agency. 1921:79. The People's Year Book and Annual of the English and Scottish Wholesale Societies. Manchester: The Co-operative Wholesale Society. Gambar dibuat oleh Levri Ardiansyah (2016).

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Co-operation opens the door to partnership.

When " Distribution shall undo excess and each man has enough " for secure existence, the baser incentives to greed, fraud, and violence will cease. The social outrages, the coarseness of life, at which we are shocked, were once thought to be inevitable. Our being shocked at them now is a sign of progress. The steps of society are—(1) Savageness; (2) The mastership by chiefs of the ferocious; (3) The government of ferocity tempered by rude lawfulness; (4) Rude lawfulness matured into a general right of protection; (5) Protection insured by political representation; (6) Ascendancy of the people diminishing the arrogance and espionage of government; (7) Self-control matured into self-support; when the philanthropist becomes merely ornamental and charity and disease unnecessary evils. We are far from that state yet; but Co-operation is the most likely thing apparent to accelerate the march to it.

Sumber: Holyoake, George Jacob. 1906:581-582. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

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Cooperation and Socialism
Sosialisme merupakan ajaran politik tentang kepemilikan kolektif atas alat-alat produksi dan pertukaran pasar harus digantikan dengan bentuk-bentuk distribusi lain yang didasarkan pada kebutuhan sosial (Adam Kuper & Jessica Kuper (2000:1011) Dalam bukunya berjudul, '*Ensiklopedia Ilmu-Ilmu Sosial, Edisi Kedua*' Kuper & Kuper menulis bahwa sosialisme menjadi eksis akibat revolusi industri dan prinsip-prinsip sosialisme dirancang untuk memikat kelas pekerja. Periode antara 1820 sampai 1850 merupakan periode maraknya sistem sosialis yang diusulkan oleh Saint Simon, Fourier, Owen, Blanc, Proudhon, Marx dan Engels. Maksud dan tujuan adanya *cooperation* ternyata identik dengan maksud dan tujuan adanya *socialiasm*. Perbedaan mendasar antara *socialism* dengan *cooperation* terletak pada kebijakan. Sosialisme menekankan pada kebijakan menyeimbangkan kompetisi, sedangkan *cooperation* mengandung kebijakan yang menghapus kompetisi.

But because the aims of the Socialists and the aim of the Co-operators are the same, it is not to be concluded that their principle or policy is the same. An aim is not the same as a principle or a policy. All honest men aim to do good to their fellow-men. Socialists aim at that as well as co-operators, but the socialist principle is entirely different from that of the co-operator. The policy of socialism is to equalize the means of competition, while the co-operator's policy is to supersede competition as far as possible.

Sumber: Holyoake, George Jacob. 1903:149. The Co-operaiive Movement Today. London: Methuen & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Meskipun *cooperation* dan *socialism* sama-sama menghasilkan *community,* keduanya memiliki perbedaan yang mendasar. *Cooperation* yang digagas Owen tidak berusaha untuk mengubah *State* menjadi *community.* Owen hanya fokus pada terbentuknya karakter baru pada diri orang-orang yang bekerja di dunia industri. Perbedaan lainnya terletak pada metode, yaitu metode *cooperation works by reason* dan tidak menggunakan kekuatan lainnya. *Cooperation* yang dimaksud Owen mensyaratkan adanya *free expression and honest self-help is possible.*

He might

Socialism on a wider scale and less practical purpose than Owen conceived, has found scientific advocates in this generation. Owen's idea was that the State should find means of establishing independent Cities of Industry, which should be self-supporting and repaying, as regards the advances made for their formation. He did not attempt to convert the State into a Community. His object was to ensure the formation of a new character in the people, and industrial arrangements which should ensure it. He might look forward to some Federation of Communities one day; but the State organization, government and control of them, which is the idea of modern Socialism, was not Owen's in their sense. State inspiration and local management was substantially the Owen idea.

There is no honest or worthy thing Socialism or Anarchism seeks, which Co-operation does not seek also. The difference is in method. Co-operation works by reason, and does not employ any other force, in any country where reason is allowed free expression, and honest self-help is possible.

Sumber: Holyoake, George Jacob. 1903:150. The Co-operaiive Movement Today. London: Methuen & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Co-operation and Communism

Pada era Robert Owen, istilah '*communist*' banyak digunakan oleh para penulis komunis yang menunjuk pada anggota komunitas yang bekerja bersama untuk kemanfaatan bersama, sehingga komunitas-komunitas yang bermunculan berdasarkan konsep *co-operation*-nya Owen dituding juga sebagai komunis.

A modern author, who has written with discernment of social theorists, says, "The words Co-operation and Co-operative have been used by communist writers to denote that all the members of a community are to work together for the common benefit, instead of working, as at present, each on his own account."[3] This explanation is on the line of truth, and goes forward some distance upon it.

Sumber: Holyoake, George Jacob. 1906:5. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

Memang pada dasarnya, maksud adanya *cooperation* dan kebijakan-kebijakan yang dibangun untuk mewujudkan *cooperation* adalah merupakan *communism* (Holyoake, 1906:150) karena *cooperation* berarti *self supporting society* yang dicirikan adanya *common labour, common property, common education* dan *common means of intelligence.* Istilah *common* disini memiliki makna yang sama dengan *public,* sehingga *common proverty* misalnya adalah juga *public proverty,* begitu juga *common education* adalah juga *public education.* Berikut ini penjelasan Holyoake:

The original aim and continuous policy of Co-operation is communism, which, as the reader has seen, means a self-supporting society distinguished by common labour, common property, and common means of intelligence and education; whereas Socialism conserves class distinctions, class privileges, and class war. It would mitigate these evils but not supersede them.

Sumber: Holyoake, George Jacob. 1903:150. The Co-operaiive Movement Today. London: Methuen & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Berdasarkan sejarah pertumbuhan dan perkembangan komunisme, Adam Kuper & Jessica Kuper (2000:143) dalam bukunya berjudul, '*Ensiklopedia Ilmu-Ilmu Sosial, Edisi Kedua*' menulis bahwa Karl Marx dan Engels sebagai tokoh gerakan sosialis yang radikal menyebut diri mereka sebagai kaum komunis hanya untuk membedakan dari kelompok-kelompok sosialis lainnya yang mereka anggap tidak konsisten. Selanjutnya, Marx dan Engels seringkali menggunakan istilah komunisme dan sosialisme secara bergantian, sehingga komunisme menjadi sinonim sosialisme. Marx dan Engels berpandangan bahwa komunisme merupakan bentuk awal dan akhir masyarakat manusia. Bentuk awalnya adalah masyarakat primitif yang tidak mengenal kelas, tidak ada pembagian kerja yang timpang, serta tidak memiliki institusi pemaksaan dan dominasi. Di Rusia, Vladimir I. Lenin (1917) mendirikan Partai Komunis dengan keyakinan mendasar bahwa perubahan sosial hanya dapat dilakukan melalui revolusi karena proses perubahan yang lebih lunak seperti reformasi cenderung merugikan kaum tertindas (Kuper, A & Kuper, J, 2000:144). Leninisme menjadi keyakinan akan perlunya 'Partai Pelopor' yang profesional dan revolusioner untuk mengoreksi hukum-hukum sejarah dan politik sekaligus membawa seluruh masyarakat menuju komunisme, dengan cara memobilisasi kelas pekerja, petani dan etnik minoritas (Kuper, A & Kuper, J, 2000:144). Leninisme ini tidak jelas karena buku karya Lenin yang berjudul '*The State and Revolution*' tak kunjung tuntas hingga hari ini.

Dr. Karl Marx pada November 1847 dalam sebuah konferensi tentang *German Communist Conference* yang diselenggarakan di London mengemukakan *principles of co-operation* yang diistilahkan sebagai '*manifesto*' tentang maksud kaum komunis meruntuhkan aturan kaum kapitalis dengan cara akuisisi kekuasaan politik.

In November, 1847, we had a German Communist Conference in London, at which Dr. Karl Marx presided, who always presented with great ability the principles of Co-operation with a pernicious State point sticking through them. He said in a manifesto which he produced, that the aim of the communists was the overthrow of the rule of the capitalists by the acquisition of political power. The aim of the English communists has always been to become capitalists themselves, to supersede the rule of the capitalists by taking the "rule" of it, into their own hands for their mutual advantage. A congress of the same school was held at Geneva in 1867. Contempt was expressed for the dwarfish forms of redress which the slave of wages could effect by the co-operative system. "They could never transform capitalistic society. That can never be done save by the transfer of the organised forces of society." This was no congress of co-operators, but of mere politicians with an eye to State action. Of the sixty delegates present only seven were English, and this was not their doctrine.

Sumber: Holyoake, George Jacob. 1906:516. The History of Cooperation. London: T. Fisher Unwin. Gambar dibuat oleh Levri Ardiansyah (2016).

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Co-operation, to be serviceable and efficient, must be orderly

Dalam konteks keteraturan sosial, Wilkin (1903) dalam bukunya berjudul '*Control in Evolution, A Discussion of the Fundamental Principles of Social Order and Progress*' menegaskan bahwa *co-operation* merupakan elemen mendasar dalam ikatan sosial yang normal (*co-operation is essential as an element in the normal of social bond*) khususnya ikatan pelayanan (*to be serviceable*) dan ikatan yang efisien. Sebagai elemen mendasar, *co-operation* dapat terbentuk jika manusia memiliki kemauan (*will*) untuk dapat melayani manusia lainnya pada saat tengah berinteraksi. Untuk itu, *co-operation* haruslah teratur dan keteraturan ini dapat terbentuk dengan adanya aturan (*established rules*) yang dinyatakan secara tertulis dalam bentuk konstitusi dan hukum. Berikut ini gambar kutipan tulisan Wilkin (1903:68):

(3) *Coöperation* is essential as an element in the normal social bond.

That is to say, coöperation is essential, not in general, but with special reference to the interest that constitutes the basis of the fellowship, and in promotion of that interest. Fellowship expresses itself in a cooperation determined by the subject-matter involved. Artists cooperate in furtherance of art; scientists in promotion of science—each in his own special domain.

But cooperation, to be serviceable and efficient, must be orderly; and, if it is to be of any permanence it must be conducted according to established *rules;* and these, to be available at all times, must be written or printed, in the form of a *constitution* and *by-laws.*

Sumber: Wilkin, George F. 1903: 68. Control in Evolution, A Discussion of the Fundamental Principles of Social Order and Progress. New York: A.C. Armstrong & Son. Gambar dibuat oleh Levri Ardiansyah (2016).

Administrasi merupakan tindakan mengganti semangat permusuhan (*spirit of hostility*) dengan semangat kerjasama (*spirit of co-operation*).

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30 ORGANIZATION AND ADMINISTRATION

I firmly believe, unless the spirit of hostility can be replaced by the spirit of co-operation—we are in for some sorry times. I also believe it behooves every individual and every organization that cares for their country and their fellowmen to use every effort to avoid any conflict whatever. We cannot expect to climb the hill to sun-crowned heights with industrial strife on our backs.

Sumber: Knoeppel, C.E. 1917:30. Organization and Administration volume 6. New York: Industrial Extention Institute. Gambar dibuat oleh Levri Ardiansyah (2016).

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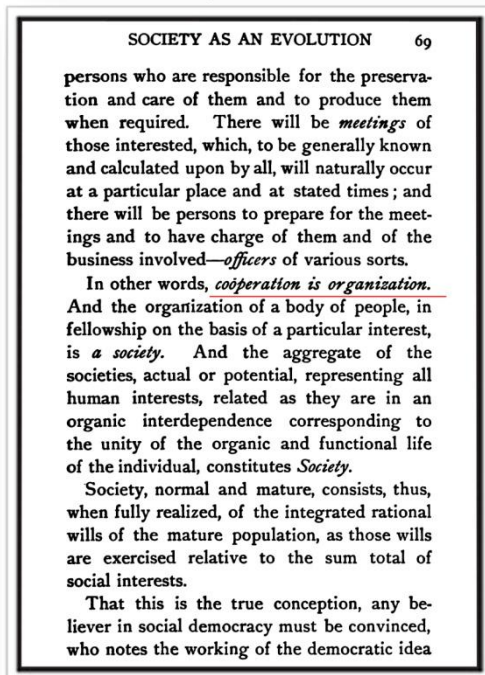
Co-operation is Organisation

Co-operation yang teratur haruslah tertata dalam organisasi. Dalam kalimat yang singkat dan tegas, Wilkin (1903:69) menulis, '*co-operation is organization*'. Manusia yang bekerjasama perlu merumuskan aturan kerjasama yang belum mereka miliki. Jika diantara mereka tidak mampu menyusun sendiri naskah kerjasama, tentu mereka akan melibatkan pihak lain yang berkompenten. Banyak hal lain yang harus mereka tata terlebih dahulu untuk mewujudkan kerjasama yang teratur. Inilah yang Wilkin maknai '*co-operation is organization*'. Perspektif Wilkin ini tampak merupakan alir yang berkesinambungan dan terkait erat dengan definisi Waldo tentang '*administration as co-operation*'. Jika keduanya kita kombinasikan, maka akan menghasilkan kalimat '*administration as co-operation and co-operation is organization*'. Kalimat ini tidak berarti *administration is organization,* tetapi kalimat ini dapat dipahami bahwa administrasi terkait erat dengan organisasi dalam konteks administrasi sebagai kerjasama. Melalui organisasi, kerjasama yang teratur akan berpotensi mewujudkan keteraturan sosial yang dicapai dengan administrasi.

SOCIETY AS AN EVOLUTION 69

persons who are responsible for the preservation and care of them and to produce them when required. There will be *meetings* of those interested, which, to be generally known and calculated upon by all, will naturally occur at a particular place and at stated times; and there will be persons to prepare for the meetings and to have charge of them and of the business involved—*officers* of various sorts.

In other words, *coöperation is organization.* And the organization of a body of people, in fellowship on the basis of a particular interest, is *a society.* And the aggregate of the societies, actual or potential, representing all human interests, related as they are in an organic interdependence corresponding to the unity of the organic and functional life of the individual, constitutes *Society.*

Society, normal and mature, consists, thus, when fully realized, of the integrated rational wills of the mature population, as those wills are exercised relative to the sum total of social interests.

That this is the true conception, any believer in social democracy must be convinced, who notes the working of the democratic idea

Sumber: Wilkin, George F. 1903. Control in Evolution, A Discussion of the Fundamental Principles of Social Order and Progress. New York: A.C. Armstrong & Son.
Gambar dibuat oleh Levri Ardiansyah (2016).

Merunut pemikiran Wilkin (1903:94), *social cooperation* dapat diwujudkan dengan berkaca pada prinsip-prinsip Biologi, karena *social cooperation is a part of biological inheritance.* Waldo memandang sistem sosial sebagai sistem administrasi, sehingga istilah *social cooperation* yang ditulis Wilkin, dalam pandangan Waldo adalah administrasi itu sendiri, yang digolongkan berdasarkan 2 konsep yaitu (1) organisasi dan (2) manajemen. Kedua konsep ini berkaca pada pemikiran tentang anatomi dan fisiologi dalam sistem biologis. Tulisan Waldo tentang ini dapat dibaca sebagai berikut:

> *'The distinguishing characteristics of an administrative system, seen in the customary perspective of administrative students, are best subsumed under two concepts, organization and management, thought of as analogous to anatomy and physiology in a biological system. Organization is the structure of authoritative and habitual personal interrelations in an administrative system. Management is action*

intended to achieve rational cooperation in an administrative system" (Waldo, 1955:12).

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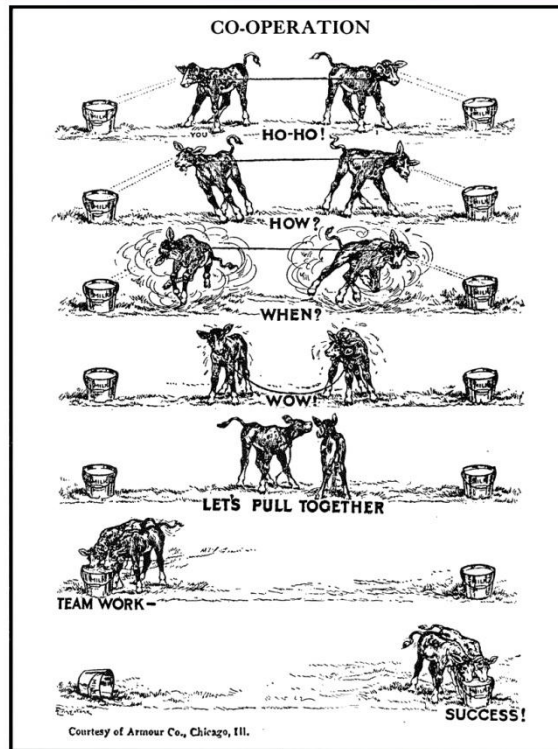
Sumber: Unkown author.1918:16. Connecticut Health Bulletin. Chicago: Armour Co. Gambar diolah oleh Levri Ardiansyah (2016).

a

Co-operation as a Method of Economic and Social Action

Co-operation, then, means working along with another for some definite purpose.

The simplest application of this idea is seen where a number of persons buy in common (as is done in agricultural co-operation) or sell in common (as in the co-operative creameries in Ireland).

It may be as well to point out at once that in the minds of the leaders of this movement co-operation stands for a creed and a tendency towards the final consummation and redemption of society in a co-operative commonwealth. Co-operation in this sense means the abandonment of competition and the renewal of society on the principle of mutual help; each individual interesting himself in the welfare of the social body, and the social body having a care for the single individual, or, as the motto puts it, "*Each for all, and all for each.*"

Sumber: Parkinson, Henry. 1920:117. A Primer of Social Science. London: P.S. King & Son. Gambar dibuat oleh Levri Ardiansyah (2016).

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If however, we take co-operation as a method of economic and social action, we may define it in these terms: It is a voluntary union of persons for the pursuit of economic and other goods for their common advantage, on a basis of equity and equality.

71. The most satisfactory method of dealing with this description will be to take each member separately and explain it.

(*a*) It is *voluntary*, and therefore not set up by the State, but freely adopted by individuals.

(*b*) A *union of persons*. The condition of membership being the payment of a small entrance fee and engaging to take a £1 share.

(*c*) For the pursuit of *economic goods*. This is done in three ways—by production, by distribution in the wholesale or retail houses, and by financial operations, *i.e.*, by credit.

(*d*) And of *other goods also*, namely, education, recreation, housing.

(*e*) For *their common advantage*. This may, in the first instance, be gain, but mutual help, social work, and various friendly society benefits enter definitely within the scope of the movement. Hence we see how far co-operation agrees with and how far it differs from the club or friendly society.

(*f*) On a *basis of equity*. Trading is to be honest and honourable, as, for example, in refusing to purchase "sweated" or adulterated goods and in paying a just wage. Current rates and prices are accepted provisionally and trade union rates of wages are adopted.

(*g*) And *equality*. Strictly speaking, the ideas of employer and employee, trader and customer, have no meaning within the circle of true co-operation.

Sumber: Parkinson, Henry. 1920:118-119. A Primer of Social Science. London: P.S. King & Son. Gambar dibuat oleh Levri Ardiansyah (2016).

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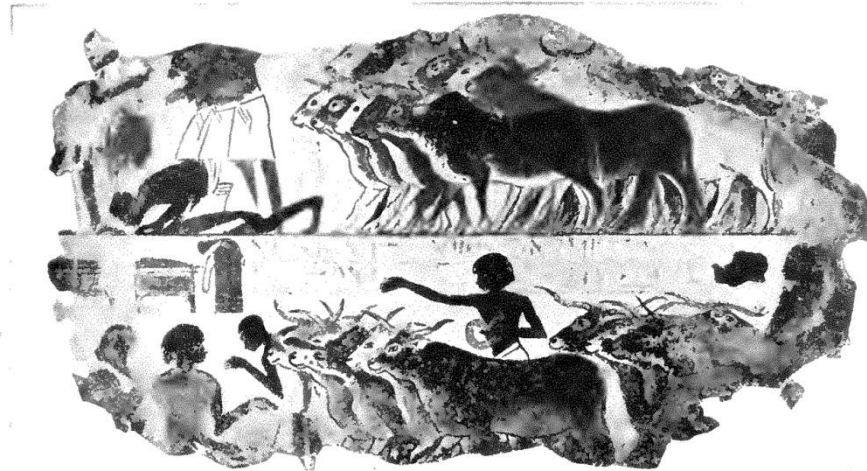
Rekonstruksi Konsep *Co-operation*

Merekonstruksi konsep kerjasama (*co-operation*):

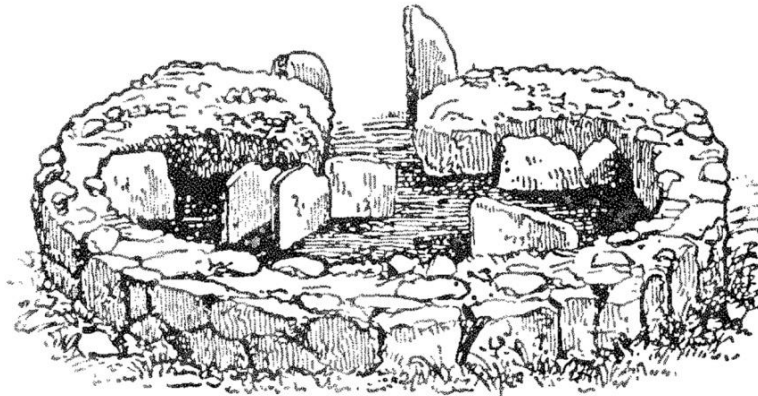
Anggapan Dasar:

Konsep *cooperation* adalah konsep yang dimiliki Ilmu Administrasi, jika:

1. *Cooperation* tidak terkait dengan *profit,* karena *profit* adalah konsep yang dimiliki oleh Ilmu Ekonomi;
2. *Cooperation* bukan merupakan *communism,* karena *communism* tidak memiliki keyakinan ilmiah terhadap nilai (*value*) dan sepenuhnya berdasarkan fakta, sedangkan Ilmu Administrasi tidak dapat memisahkan dirinya dengan nilai yang diyakini merupakan sumber dan penyebab adanya fakta;
3. *Cooperation* bukan merupakan *co-operation* yang berarti operasi bersama, karena dalam pengertian ini, *cooperation* bukanlah suatu konsep melainkan praktik melaksanakan operasi bersama;
4.

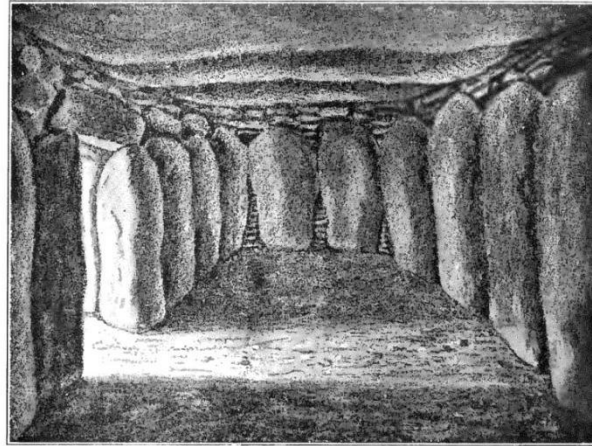
Dalam sejarah manusia, ada 2 bentuk nyata kerjasama yang tidak terkait sama sekali dengan motif profit dan tidak mengandung unsur kompetisi yaitu: (1) kerjasama membangun rumah; dan (2) kerjasama pemakaman. Kedua bentuk kerjasama ini merupakan kerjasama pertanahan yang hingga kini masih dipraktikan murni sebagai kerjasama tanpa motif profit dalam bentuk gotong royong. Meski kegiatan membangun rumah kini menjadi kegiatan bisnis perumahan, namun masih terdapat komunitas tertentu yang membangun rumah berdasarkan semangat gotong royong, seperti yang dilakukan Suku Baduy di Provinsi Banten. Begitu juga kegiatan kerjasama pemakaman yang telah menjadi bisnis pemakaman mewah, namun sebagian besar prosesi pemakaman di berbagai belahan dunia masih merupakan bentuk kerjasama gotong royong. Bryce (1915:13) dalam bukunya yang berjudul '*The Book of History: A History of All Nations, from the Earliest to the Present*' menampilkan gambar proses kerjasama manusia dalam bentuk lukisan pada dinding makam sebagai berikut:

VIVID SCENES OF ANCIENT LIFE DEPICTED BY CONTEMPORARY ARTISTS
The walls of the tombs in Egypt form a great picture gallery of the vanished life of that country and are invaluable to the historian. This fragment from the British Museum shows how vividly the domestic figures were realised.

Sumber: Bryce, Viscount. 1915:13. The Book of History: A History of All Nations, from the Earliest Time to the Present. Volume 1. London: The Educational Book CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Sejarah tentang kerjasama membangun rumah dan kerjasama pemakaman ini menarik karena tidak pernah kita temukan dalam kajian ilmiah manapun sebagai bentuk kegiatan kerjasama administrasi yang tanpa motif profit dan tanpa kompetisi. Rumah 'Pondok Melingkar' yang terkenal sebagai '*A Hut of Circle of The Bronze Age*', adalah salah satu contoh. Bryce (1915:144) menampilkan gambar rumah ini sebagai berikut:

A HUT-CIRCLE OF THE BRONZE AGE
One of the earliest forms of habitation in Britain. From the British Museum "Guide to the Bronze Age."

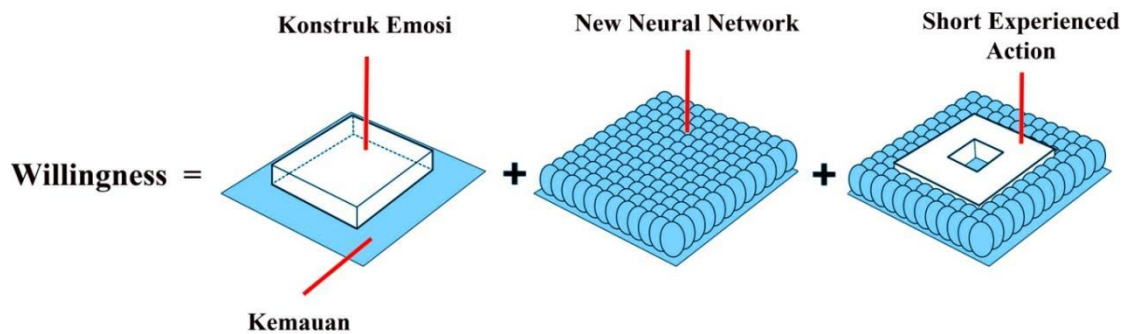
Sumber: Bryce, Viscount. 1915:144. The Book of History: A History of All Nations, from the Earliest Time to the Present. Volume 1. London: The Educational Book CO. Gambar diolah oleh Levri Ardiansyah (2016).

Bahkan bentuk kerjasama pemakaman menghadirkan bukti hasil kerjasama yang monumental, seperti pemakaman '*The Famous Giant Chamber*' di Denmark, pemakaman *Stonehenge* di Inggris, pemakaman *Gobekti* di Turki dan pemakaman pada Piramida Gyza di Mesir. Monumental karena bukti-bukti kerjasama pemakaman ini tidak hanya diciptakan berdasarkan Ilmu Matematika, Fisika dan Astronomi, tetapi juga karena mereka semua eksis hingga hari ini. Bryce (1915:168-169) menampilkan gambar pemakaman '*The Famous Giant Chamber*' sebagai berikut:

The co-operation of a large number of men for a common purpose is also shown in the often huge stone structures to which, on account of the size of the stones employed in their construction, the name "megalithic" structures, or gigantic stone structures, has been given. In Northern Europe they, too, belong to the Stone Age proper. The majority of these gigantic structures were originally tombs; the principle on which they are built is often repeated even in far less imposing tombs.

THE FAMOUS GIANT CHAMBER NEAR ROSKILDE IN DENMARK

That the men of the later Stone Age had developed a considerable degree of culture is proved by such remains as these. The erection of these giant chambers must have called for a vast amount of co-operation, skill, and ingenuity. The means whereby the massive stones were placed into position, and so fixed to withstand the shocks of thousands of years, have not yet been satisfactorily explained by archæology.

Sumber: Bryce, Viscount. 1915:168-169. The Book of History: A History of All Nations, from the Earliest Time to the Present. Volume 1. London: The Educational Book CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Willingness

Pengertian Sederhana *Willingness*

Sederhananya, *willingness* berarti gerak cepat melakukan suatu pekerjaan tanpa harus dibujuk. Istilah yang sering kita temui dalam keseharian seperti 'reaksi cepat" pada Unit Reaksi Cepat atau 'cepat tanggap' dalam stuasi darurat bencana, adalah beberapa makna *willingness* yang diterjemahkan ke dalam Bahasa Indonesia. Di dalam kamus Merriam-Webster, *willingness* juga berarti "tidak menolak untuk melakukan sesuatu". Lengkapnya *willingness* berarti :

2. *Inclined or favorably disposed in mind: ready (willing and eager to help);*
3. *Prompt to act or respond (lending a willing hand)*

4. *Done, borne, or accepted by choice or without reluctance (a willing sacrifice):*
5. *Of or relating to the will or power of choosing: volitional*

Sejarah Kata *Willingness*

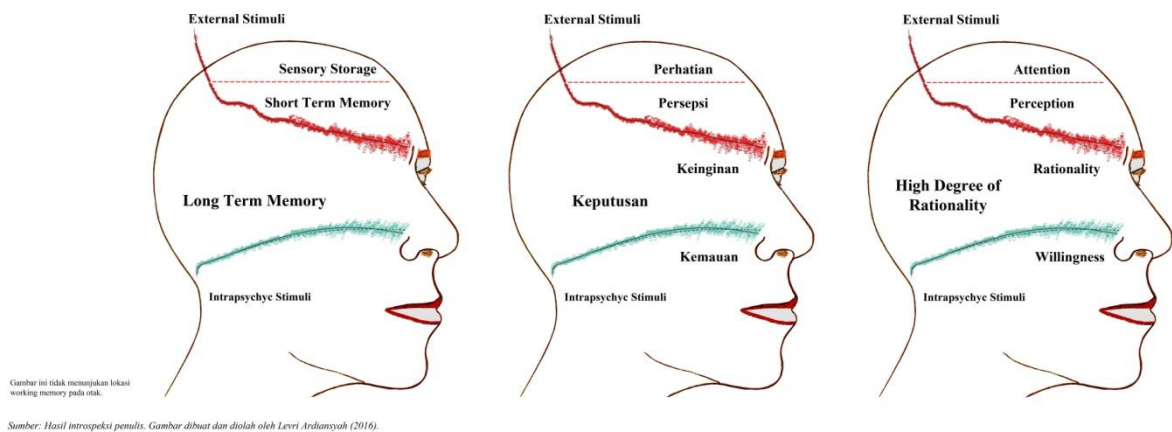
Penelusuran Pengertian Kata "Willingness" berdasarkan Etimologi

Willing (adj.)	**early 14c., present participle adjective from will (v.1). Old English had -willendliche in compounds. Related: Willingly; willingness.**
Readiness (n.)	**mid-14c., "state of preparation, preparedness;" late 14c., "promptness;" from ready (adj.) + -ness. As "willingness" from c. 1400.**
Largesse (n.)	**also largess, "willingness to give or spend freely; munificence," c. 1200, from Old French largesse "a bounty, munificence," from Vulgar Latin *largitia"abundance," from Latin largus "abundant" (see large). In medieval theology, "the virtue whose opposite is avarice, and whose excess is prodigality" ["Middle English Dictionary"]. For Old French suffix -esse, compare fortress.**
Facility (n.)	**early 15c., "gentleness, lightness," from Middle French facilité "easiness, ease," from Latin facilitatem (nominative facilitas) "easiness, ease, fluency, willingness," from facilis "easy" (see facile). First in a medical book: If it be nede forto smyte [the head] wiþ a malle, be it done with esynez or facilite [transl. Guy de Chauliac's "Grande Chirurgie"] Its sense in English expanded to "opportunity" (1510s), to "aptitude, ease, quality of being easily done" (1530s). Meaning "place for doing something" which makes the word so beloved of journalists and fuzzy writers, first recorded 1872, via notion of "physical means by which (something) can be easily done."**

Sumber: ONLINE ETYMOLOGY DICTIONARY

Memahami *Willingness* dalam Psikologi

Psikolog seperti Lazarus dan Rossenberg tidak menggunakan istilah *willingness,* dalam teori mereka tentang proses emosi yang termasuk didalamnya proses berpikir. Lalu, dalam psikologi *willingness*-nya Waldo dimaknai sebagai apa? Berdasarkan hasil bacaan, kajian dan analisis yang penulis lakukan, *willingness* yang dimaksud Waldo sebagai kesiapan adalah pertemuan antara kemauan dengan konstruks emosi (*want meet construct)* yaitu sifat yang kuat dengan dukungan kejasmanian (kemauan) yang bersumber dari *intrapsychic stimuli* seperti nilai tentang kehidupan (*terminal values*), lalu bertemu dengan konstruks emosi sebagai hasil pemikiran pada *long term memory,* hingga menghasilkan sistem jaringan syaraf baru (*new neural network*) bagi *bodily change* untuk melakukan tindakan singkat dalam *short experience.*

Sumber: Hasil introspeksi penulis. Gambar dibuat dan diolah oleh Levri Ardiansyah (2016).

Dalam terminologi administrasi, *willingness* adalah kesiapan manusia untuk melakukan suatu pekerjaan (*the quality or state of being prepared to do something*). *Willingness* juga berarti kita telah mempersiapkan segala sesuatunya (*the state of being fully prepared for something*). Pada saat pekerjaan itu berlangsung, *willingness* berarti kita bekerja dengan cepat (*swiftness*), tangkas (*brisk*) dan menunjukan semangat dengan tidak mengeluh (*cheerful*). Kesiapan itu didasari keinginan yang mantap (*fixed desire* atau *fixed wish*) dan juga niat yang kuat (*intention*). Sederhananya, *willingnes* itu terdiri dari persiapan (niat dan sumber daya), kesiapan dan gerak cepat. Kesiapan dalam pengertian *willingness* dengan demikian merupakan: (1) kesiapan untuk melakukan atau tidak melakukan sesuatu; (2) kesiapan yang berarti bersedia, berdasarkan kerelaan, bukan kesiapan karena keterpaksaan; (3) kesiapan yang memang sudah diniatkan dan (4) kesiapan yang ditunjukan dengan tindakan bekerja dengan cepat dan tangkas dan (5) kesiapan yang ditunjukan dengan semangat dan tidak mengeluh. Singkatnya, *willingness is prepare to do or not to do.* Kesiapan yang dimaksud dalam kata *willingness* juga mengnadung arti ‘kemampuan’.

Pada dasarnya, persiapan dalam *willingness* adalah *recorded willingness construct,* kesiapan berarti bersedia untuk melakukan sesuatu dan gerak cepat berarti *voluntary act.* Berbeda dengan *reflex act* yang berada diluar kendali otak kita, *a voluntary act* berarti kita siap memilih *to do or not to do* sesuai dengan pemikiran kita sendiri (*a voluntary act involves a movement that we can choose to make (or not), deliberately and by thought alone*). Eksperimen klasik yang dilakukan Libet (1983) tentang *a freely voluntary act* yang ditulisnya dengan judul “*Time of Conscious Intention to Act in Relation to Onset of Cerebral Activity (Readinesspotential): The Unconscious Initiation of a Freely Voluntary Act*” memberi kesimpulan bahwa *voluntary act* sulit ditebak (*difficult to predict*). Kata kuncinya tentang *voluntary act* adalah *unpredictable act.* Ebert and Wegner (2011) memberi definisi *unpredictable act* sebagai tindakan membuat pilihan secara acak, “*the greatest possible unpredictability is achieved by making choices at random, and indeed, random behaviour is perceived as being more*

'free'(Ebert JP, Wegner DM, 2011, *Mistaking Randomness for Free Will*. Conscious Cogn 20 (3): 965). Berdasarkan penelitian Humphries dan Driver (1970) dalam tulisannya '*Protean Defence by Prey Animals'* Oecologia 5(4):285–302*,* pada banyak spesies, *unpredictable behaviour* merupakan cara untuk melepaskan diri dari masalah kehidupan (*many species have evolved unpredictable (protean) behaviour as a means of escape*).

Dalam pandangan Libet, *freely* diinterpretasi sebagai *selecting at random* yang merupakan *endogenous* atau *self-generated behaviour* yang berasal dari *intrapsychic memory* seperti *instrumental conditioning* atau *operant conditioning*, bahwa perilaku ditentukan oleh harapan (*the expectation*). Melalui *instrumental conditioning*, organisme belajar bahwa tindakan yang berbeda terkait dengan hasil yang berbeda pula (*different actions are associated with different outcomes*). Tindakan yang dipilih adalah tindakan yang terkait dengan hasil tertinggi yang diharapkan (*the action chosen is that associated with the highest expected outcome in the current context* (Sutton and Barto, 1998, *Reinforcement Learning: An Introduction*: MIT Press, Cambridge). Berdasarkan pandangan ini, berarti tindakan manusia adalah rasional, tetapi sekaligus juga *highly predictable* dan dengan demikian berarti *not 'free'*.

Cohen JD, McClure SM, Yu AJ (2007) dalam tulisannya '*Should I Stay or Should I Go? How the Human Brain Manages the Trade-off between Exploitation and Exploration*' membuat parameter untuk mengukur *instrumental conditioning* yaitu The Explore/Exploit Parameter. Pada titik ekstrim tertentu, hewan memilih tindakan yang berdasarkan instink mereka terkait dengan hasil tertinggi yang diharapkan. *Simply exploit* ini merupakan *resource acquisition*. Pada titik ekstrim lainnya, hewan tidak memilih tindakan yang terkait dengan hasil tertinggi yang diharapkan melainkan mereka mengeksplorasi pengalaman mereka atas kejadian-kejadian yang pernah mereka alami jika pilihan lain mereka ambil. Ini merupakan *information acquisition*. The Explore/Exploit Parameter ini memang hanya relevan dalam kasus hewan mencari sumber makanan (*foraging for sources of food*). Kira-kira pertanyaan yang muncul dalam benak hewan adalah: apakah lebih baik menuju sumber makanan yang dia ketahui (*exploit*), ataukah lebih baik keliling keliling (*to explore*) dengan harapan akan menemukan sumber makanan yang baru yang mungkin lebih baik (*finding a new and possibly better source*).

Tentang *voluntary act* atau *volition,* Metzinger (2006) dalam tulisannya *Conscious Volition and Mental Representation: Toward a More Fine-grained Analysis*, dalam buku karya Sebanz N, Prinz W (eds)Disorders of volition. Bradford Books, MIT Press, Cambridge, pp19–48, lebih menekankan pada *The Experience of Action* sebagai *The Experience of Volition* yaitu sebagai '*thin and evasive'*. Hal ini didasarkan kenyataan bahwa manusia terkadang peduli pada rangsangan sensori yang membawa konsekuensi pada tindakan manusia itu

sendiri. Libet (1985) dalam tulisannya berjudul '*Unconscious Cerebral Initiative and the Role of Conscious Will in Voluntary Action'* menekankan pada *Precursors of Action* yaitu keputusan untuk bertindak atau tidak bertindak (*the decision to act or not*), Wegner (2005) menitikberatkan pada pentingnya *The Feeling of Authorship* yaitu *the sensation of being in control*, Metcalfe and Son (2012) menekankan *pada The Judgement of being in Control* yaitu *the inference of being in control*, sedangkan beberapa ahli lainnya seperti Aarts et al. 2005 lebih cenderung kepada hubungan antara tindakan dengan hasil yang diharapkan (*the relation between action and outcome* yaitu *having an effect on the world*).

Dalam bahasa yang akrab ditelinga kita, *volition is ability to implement will,* kemampuan untuk melaksanakan kesiapan *to do or not to do.* Pada dasarnya *will* atau *willingness* merupakan *the power to choose* sekaligus *the power of choice* yang menyelenggarakan tindakan sebagai hasil dari arsip memori aktual. Bagi sebagian ahli, *volition* itu fokus pada kesiapan dalam membuat pilihan dan memilih. *The power of decision making.*

Menterjemahkan Pandangan Waldo tentang *Wllingness* berdasarkan Perspektif Psikologi

Willingness to Rationality and Rationality to Willingness

Willingness to rationality berarti fase pertama tindakan manusia untuk berinteraksi dengan diawali adanya *willingness* kemudian seiring bertambahnya durasi waktu, tindakan selanjutnya menjadi rasional. Dukun primitif umumnya untuk pertama kali bersedia membantu mengobati tanpa meminta imbalan. Saya dapat membayangkan ini terjadi karena hingga kini masih banyak kita temui praktik semacam itu. Pada pengobatan yang selanjutnya, sang dukun mulai rasional dengan berharap ada imbalan tertentu atas jasanya membantu mengobati. Penelitian yang dilakukan Lorenz tentang *fixed action pattern* pada hewan menunjukan bahwa pengalaman pertama hewan melampiaskan nafsu ternyata menjadi pola tindakan serupa mengulanginya kembali dengan konfigurasi-konfigurasi tertentu. Hewan memang tidak rasional, tetapi perilaku hewan itu menunjukan bahwa fase pertama tindakan umumnya dilakukan secara lepas, untuk selanjutnya hewan mengulangi lagi tindakan itu dengan lebih tangkas, karena hewan dapat belajar dari pengalaman pertama.

Rationality to willingness dengan demikian berarti tindakan rasional yang kemudian memunculkan *willingness.* Meskipun pada awalnya seorang manusia primitif merasa lebih praktis berburu seorang diri, dengan adanya teman baru yang juga ingin ikut berburu, pada akhirnya dia siap berburu berdua karena dia bersedia mengabaikan kepraktisan yang selama ini dia nikmati. Siap mengurangi kepraktisan, mengesampingkan pemahaman yang telah kita pegang sekian lama, beralih pada pilihan lain yang merunut pemikiran manusia lainnya lebih tepat serta siap melakukan tindakan diluar aturan yang kita taati adalah *rationality to willingness.*

Perbedaan mendasar antara *willingness* dengan *rationality* ada pada sumber pilihan (*choice source*). Pilihan pada *willingness* adalah *intrapsychic choice* yang tentu saja bersumber dari *intrapsychic memory* di dalam proses konstruksi saat *working memory.* Sedangkan pilihan pada rasionalitas adalah *external choice* yang bersumber dari kejadian yang kita alami atau peristiwa yang kita posdiksi. Kesiapan prajurit untuk mati dalam medan pertempuran tentulah merupakan *willingness* yang berasal dari dalam dirinya, baik itu berupa keyakinan agama yang dia anut, nilai-nilai kejuangan yang ditanamkan padanya atau perasaan senang berkorban untuk bangsa dan negara. Bagaimana dengan kesiapan prajurit untuk tetap hidup dalam medan pertempuran? Apakah itu merupakan *willingness* ataukah itu adalah rasionalitas?

Willingness yang berdasarkan rasionalitas adalah rasionalitas itu sendiri. Sedangkan rasionalitas yang akhirnya menjadi *willingness* adalah juga berarti rasionalitas, perbedaannya adalah pada rasionalitas yang akhirnya berdasarkan *willingness* itu rasionalitas menjadi semakin canggih, entah itu tulus atau hanya salin rupa semata. Pemerintah yang semula otoriter kini menjadi *benefolen autocratic* dengan membangun *image* sebagai pemerintah yang demokratis, adalah salah satu contohnya. Dinamika antara *rationality, willingness* dan perpaduan keduanya secara terukur (*mix calculated)* adalah ejaan lain dari *high degree of rationality.* Dalam interaksi manusia dengan manusia lainnya, *willingness* cenderung menjadi *rationality* atau dengan kalimat yang jelas: *first willingness based on first rationality. There is no second willingness, because willingness has become rationality. The next rationality is rationality to control your willingness. Rationality for me, willingness for you.*

Jenis dan Pola Gerak *Willingness*

Pada dasarnya, ada 3 jenis *willingness* yaitu: (1) *willingness to act;* (2) *willingness to interact;* dan (3) *willingness to cooperate.*
Willingness to act terdiri dari:

1. *Willingness to work*
2. *Willingness to rest*
3. *Willingness to sacrifice*

Willingness to interact terdiri dari:

1. *Willingness to communicate*
2. *Willingness to give*
3. *Willingness to dispense*
4. *Willingness to exchange*
5. *Willingness to initiate*
6. *Willingness to interact*

Willingness to cooperate terdiri dari:

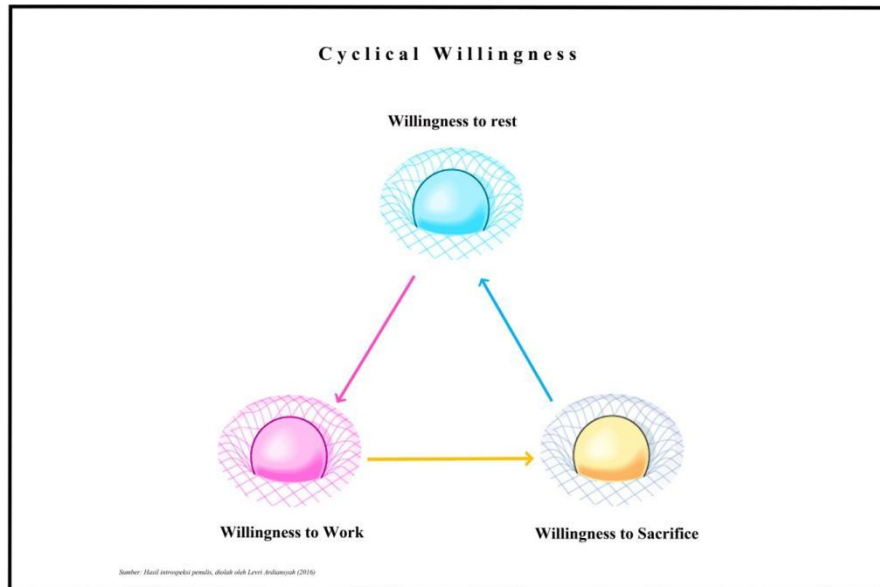
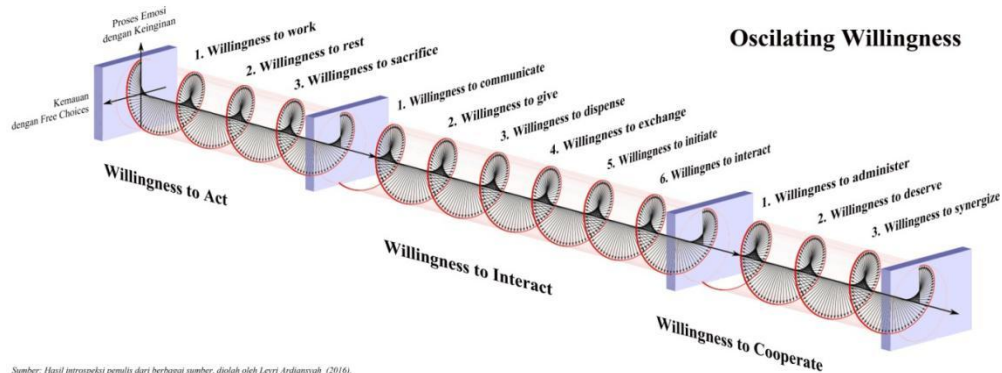
1. *Willingness to synergize*
2. *Willingness to deserve*
3. *Willingness to administer*

Willingness to act terjadi pada fase *short experience* dengan durasi yang singkat. *Willingness to act* ini akan kembali menjadi *external stimuli,* dan jika manusia merasa nyaman, *wliingness to act* dapat menjadi tindakan yang berkelanjutan (*repeated actions*). *Willingness to act* hanya berlaku untuk diri sendiri, tidak melibatkan manusia lainnya dan segala konsekuensinya menjadi tanggungjawab sendiri.

Willingness to Work
Bekerja seorang diri adalah bentuk tindakan yang dihasilkan oleh adanya *willingness to work.* Melukis, memasak, bersenandung, memahat patung, mengukir kayu, menjahit, menulis, mengetik, dan membaca adalah beberapa contohnya. *Willingness to paint* pada diri seorang manusia primitif telah menjadi pekerjaan melukis yang kemudian membuka peradaban manusia dengan dibuatnya lukisan berupa huruf. Adanya hurud inilah yang menjadi awal adanya sejarah peradaban manusia. *Willingness to cook* pada diri seorang manusia primitif telah mendorongnya untuk membuat periuk nasi yang kemudian menjadi awal *intradiffusion* yaitu proses penyebaran unsur-unsur kebudayaan dari satu individu ke individu lainnya. Begitu juga dengan *willingness to sculpt* yang menghasilkan patung-patung dewa dan *willingness to read* yang membuka berkembangnya ajaran agama Islam.

Willingness to Delay
Artinya kita siap bersedia menunda segalanya dengan cara tidak melakukan tindakan yang memperkeruh hubungan, Kita menunggu, membiarkan waktu mengalir hingga momentum tertentu. *Willingness to not to do* dan *wilingness to not to innitiate* adalah bentuk lain dari *willingness to delay.* Seringkali menunda sejenak atau beberapa waktu lamanya akan menimbulkan informasi baru atau situasi yang tidak kita duga namun berdampak positif. Hanya saja manusia memiliki sifat tergesa-gesa, hingga tidak memiliki *willingness to delay.* Ungkapan ‘makin cepat makin baik’ adalah contoh *instrumental values* yang meniadakan *willingness to delay*.

Willingness to Sacrifice
Willingness to sacrifice adalag kesiapan atau kesediaan untuk menghancurkan atau merusak apa yang kita miliki karena kita memiliki kehendak mulia tertentu yang justru dapat kita capai dengan cara penghancuran atau perusakan milik kita sendiri. *Willingness to sacrifice is readiness to destruct ourself due to our great desires.* Disamping itu *willingness to sacrifice* juga berarti kita bersedia untuk menghentikan konflik, yang tentu saja karena kita tahu bahwa kita tidak akan menang. *Willingness to sacrifice* tertinggi adalah kesediaan untuk mengorbankan kematian kita demi kehidupan yang terhormat di dunia ini. Dalam kalimat slogan, *willingness to sacrifice* itu adalah ‘Siap hidup demi kehidupan yang lebih baik’ atau ‘Berani Hidup untuk Hidup’.

Pola Gerak *Willingness*
Pola Gerak Melingkar
Cyclic activity mencakup pengetahuan tentang lingkaran dan semua gerak yang terjadi di dalam lingkaran.

Pola Gerak Maju Mundur (*Oscilating Willingness*)
oscilating activity merupakan gerak teratur maju mundur antara *maximum* dan *minimum values*.

Ada instability

Willingness memang tidak cukup untuk membangun kerjasama, karena pada dasarnya *wliingness* maju mundur dan berubah-ubah sehingga manusia memerlukan *ideological background* lainnya sekelas *wllingness* yaitu *trust* yang bersumber dari *beliefs.*

High Degree of Rationality

Menterjemahkan Pandangan Waldo tentang *High Degree of Rationality* ke Dalam Perspektif Psikologi

Istilah *high degree of rationality* adalah istilah yang diciptakan oleh Dwight Waldo (1955:5) dalam bukunya "*The Study of Public Administration*" tentang definisi administrasi.

Sebenarnya, di dalam psikologi tidak dikenal istilah *high degree of rationality.* Waldo sendiri mengakui bahwa istilah *high degree of rationality,* bersumber pada psikologi sosial, ketika menjelaskan tentang *split personality* dan *reality.* Waldo (1955:62) menulis.' *The split between fact and value, "is" and "ought," creates problems for the social scientist. It makes for a split personality".* Pada halaman 63 Waldo memberi batasan tentang realitas yang merupakan kajian psikologi sosial, yaitu *reality as it is experienced in the process of living is a seamless web. In the decision-making process, fact and value are joined not merely mechanically, but organically. Water is analytically hydrogen and oxxygen. This is useful information. But as water it has important qualities quite different from its constituent elements".* Melalui psikologi sosial inilah kita dapat memahami *high degree of rationality.* Waldo (1955:65) menulis 'w*ritten record-extended and permanent memory- was a necessity to any high degree of rationality'.* Dalam konteks administrasi, Waldo (1955:6) menjelaskan tentang "*high degree of rationality"* dengan pertanyaan retorik "*Whose goals or ends shall be used in assessing rationality?.*

Lalu, istilah *high degree of rationality*-nya Waldo, didalam psikologi dipahami sebagai apa? Jika Waldo menggunakan perspektif *high* untuk menjelaskan tentang rasionalitas yang sungguh-sungguh, sebaliknya di dalam psikologi justru menggunakan perspektif *deep* yang menunjukan kedalaman proses berpikir, dimulai pada tingkatan *short, long and deep, yaitu sensory storage, short term memory, long term memory* dan *deep mystery.* Istilah *high degree of rationality*-nya Waldo termasuk pada tingkatan *long term memory* yaitu pada saat otak telah selesai membuat keputusan berupa *emotion construct,* lalu otak menerima *intrapsychic stimuli* berupa keinginan, atau kemauan, atau hasrat, atau kehendak, atau *terminal values,* atau bahkan *belief and The Self.*

Sebagai contoh, tukang sate melihat bahwa keuntungan dari hasil penjualan sate tidak banyak (*cognitive appraisal),* yang disebabkan karena banyaknya tukang sate (*external stimuli)* dan cara dia berjualan sate yang tidak berubah sejak awal (*subjective experience)*. Terbentuklah pemikiran untuk meingkatkan keuntungan (*profit construct).* Jika otaknya berpikir, apa yang menjadi alasan, maka ini adalah keinginan. Keperluan biaya kuliah anaknya menjadi alasan tukang sate untuk meningkatkan keuntungan. Jika tukang sate memiliki keberanian untuk mengubah strateginya berjualan, maka sifat ini merupakan kemauan. Bagaimana

cara yang praktis namun menghasilkan keuntungan? Jika tukang sate berpikir demikian, inilah yang dimaknai Weber sebagai *practical rationality.* Jika tukang sate berhasil menemukan strategi penjualan dengan cara mengemas sate dalam kaleng, maka konsep 'Sate Kaleng' inilah yang dimaknai Waldo sebagai *high degree of rationality.* Di dalam psikologi, proses selanjutnya adalah *bodily change* yaitu terbentuk jaringan system syaraf baru dalam tubuh tukang sate yang khusus diciptakan tubuh untuk nanti mendukung tindakan tukang sate memproduksi 'Sate Kaleng'. Lalu bertanyalah tukang sate kepada dosen pemasaran tentang cara pemasaran yang tepat (dalam psikologi, ini berarti *bodily change* bersentuhan dengan *short experience).* Setelah tahu, terbentuklah *facial expression* yang terlihat dari mimik wajah tukang sate yang sumringah pada saat dia bercerita kepada istrinya (*short experience). "Bapak koq seneng banget"* kata istrinya yang melihat suaminya bercerita dengan semangat dan sesekali tersenyum. Ini adalah *response to emotion* atau yang kita kenal sebagai perasaan. Dalam contoh ini perasaan tukang sate adalah senang.

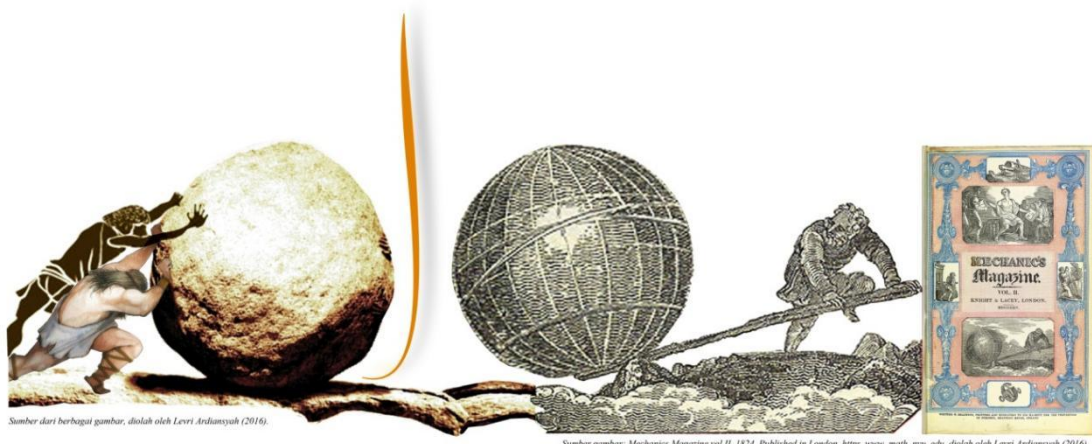
Menterjemahkan Pengertian *High Degree of Rationality* ke dalam konteks Psikologi

Membangun Konsep tentang *High Degree of Rationality*

Adanya ciri *high degree of rationality* pada kerjasama yang baik, berarti pada dasarnya administrasi tidak mungkin terjadi pada anak-anak, karena anak-anak tidak memiliki kemampuan rasionalitas sekelas *high degree of rationality* . Administrasi juga tidak terjadi pada keluarga, karena keluarga dibangun atas dasar cinta kasih, bukan rasionalitas, meskipun keluarga adalah satu-satunya institusi tertua, wadah ikatan interaksi manusia, yang tetap eksis hingga kini. Hal ini karena ilmu berkembang atas dasar rasionalitas, bukan cinta.

Introspective Question

Sumber dari berbagai gambar, diolah oleh Levri Ardiansyah (2016).

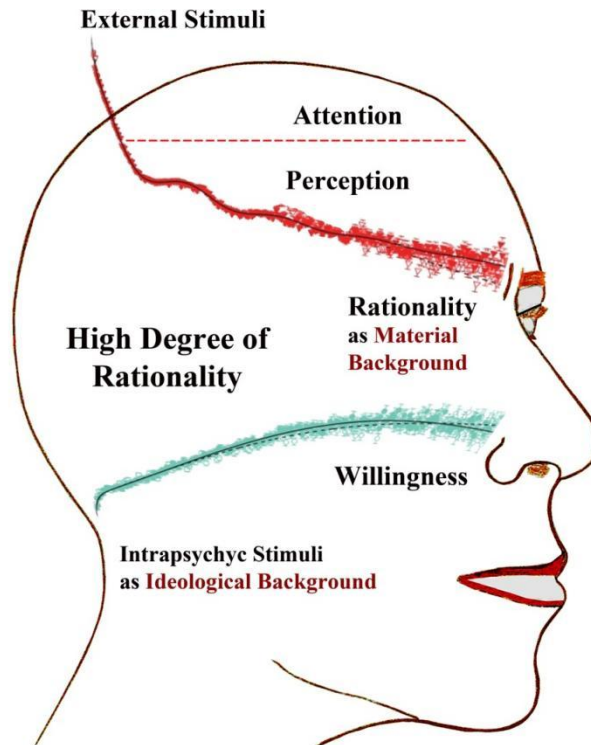
Sumber gambar: Mechanics Magazine vol II. 1824. Published in London. https_www_math_nyu_edu, diolah oleh Levri Ardiansyah (2016).

Administrasi adalah ilmu yang mengkaji tentang penataan *mix calculated values* pada peristiwa terjadinya *cooperative action* agar *value* itu tetap sama hingga tujuan berakhir (Levri Ardiansyah, 10 Maret 2016)

Rasionalitas adalah proses, sedangkan *willingness* adalah kerja.
Di dalam rasionalitas sudah terkandung pengertian tindakan (*action*) yaitu tindakan membuat keputusan (*working memory*) dan mempersiapkan jaringan kerja (*neural network*).
Willingness tidak hanya mengandung kemauan dan kemampuan, melainkan juga menunjukan tindakan kerja.a

Administrasi adalah fungsi variabel bebas (value free) artinya tu bisa untuk penjahat, bisnis, pengadilan, dan semua
Administration is a function of independent values in specified capacity willingly (Levri Ardiansyah, 27022016). To create order or disorder
Administration : to rule sovereignity, authority, dominance bahkan *to rule royal power (Levri Ardiansyah, 27022016).*
Administrasi adalah kesadaran subjektif eh penyadaran subjektif
Vygotsky (1986) bahwa kesadaran subjektif merupakan turunan dari kesadaran sosial atau internalisasi proses dan konsepsi yang berkembang dari kebudayaan yang lebih luas yang mengalir ke setiap individu dalam masyarakat melalui percakapan (Kozulin, 1990). Hal ini berarti yang menentukan kesadaran adalah kemampuan pemantauan seseorang terhadap pengalamannya sendiri dan juga perilaku orang lain (meta-representasi). Jadi ada interaksi antara pikiran dan tubuh, juga antara kesadaran sosial dan proses kognitif.

ILMU ADMINISTRASI ADALAH science to control human actions (Levri Ardiansyah, 27022016) baca REX
Administrasi : how *to force the (signal) values at the beginning and end to be the same.*

Nilai	*values at the beginning are the same with values at the end*	Truncation Method	Debirokratisasi
	Desired frequency	Filtering	

Activity didefinisikan sebagai *variance of action*
mobility disini didefinisikan sebagai *standard deviation,* dan *complexity* didefinisikan sebagai *the shape of the action*

Sumber: Hasil introspeksi penulis. Gambar dibuat dan diolah oleh Levri Ardiansyah (2016).

Values

Value yang berasal dari bahasa Latin *valere* dimaknai sebagai '*be strong, be well, be worth",* menjadi kuat, baik dan memiliki harga diri. Pada tahun 1300-an, *value* dipahami sebagai harga yang pantas dengan nilai barang berharga (price equal to the intrinsic worth of thing). Pada akhir abad ke-14, *value* dipahami sebagai reputasi, nilai moral (*moral worth)* disamping pemahaman *value* sebagai harga (*price).* Pada pertengahan abad ke-15, *value* dimaknai sebagai 'think highly of'. Tampaknya Dwight Waldo terilhami dari makna *value* sebagai *think highly of* ini hingga Waldo menulis istilah "*High Degree of Rationality*" dalam bukunya *The Study of Public Administration* (1955).

Ada 2 jenis *values* yaitu *terminal value* dan *instrumental value. Terminal value* itu tujuan hidup, sedangkan *instrumental value* adalah cara yang lebih disukai atau dianggap lebih baik untuk mencapai tujuan hidup itu. *Terminal value* yaitu nilai yang merupakan pendirian mendasar tentang keyakinan hidup yang paling disukai. Sedangkan *instrumental values* merupakan nilai yang berkaitan dengan cara yang disukai atau dianggap lebih baik untuk mencapai *terminal value* itu. Cara itu dapat kita ketahui berdasarkan pengetahuan dan pengalaman. Lama kelamaan nilai instrumental itu dapat menjadi *terminal value* atau yang biasa disingkat *value.* Artinya *terminal value* dapat bersumber dari *habits* dan *knowledge*

Di dalam psikologi, *values are basic convictions that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence.* Pengertian tentang *values* disini dibatasi sebagai keyakinan/pendirian mendasar yang merupakan cara khusus bertingkah laku atau kesadaran tentang keberadaan diri secara pribadi maupun sosial yang lebih baik. *Value* merupakan dasar yang amat penting untuk memahami sikap dan motivasi sebab *value* mempengaruhi persepsi dan perilaku. *Terminal values are the goals that we work towards and view as most desirable. These values are desirable states of existence. They are the goals that we would like to achieve during our lifetime.* Berbeda dengan *instrumental values* yang merupakan *the preferred methods of behavior. They can be thought of as a means to an end. Instrumental values consist primarily of personal characteristics and personality traits such as honest, polite, and ambitious.*

Secara filosofis, ilmu administrasi memiliki latarbelakang ideologis yang dibangun atas dasar *terminal values* dan *beliefs* maupun latarbelakang material yang dibangun atas dasar rasionalitas. Waldo menulis,*"administrative philosophy could not be separated from its "material and ideological background." The material background included items like the importance of business and the modern corporation, and the constitutional system. The ideological background includes belief in democracy, a desire to spread it, faith in science, and the "gospel of efficiency*" (Waldo 1984, p. 21).

Administration is not Process

Apakah administrasi merupakan proses ataukah administrasi ada untuk membuat proses? Pada buku karya Menge, Edward J (1918: 156) berjudul '*The Beginnings of Science: Biologically and Psychologically Considered'* (Boston, U.S.A. : The Gorham Press) tercetak '*The machine made by human hands is made for processes*'. Kutipannya tergambar seperti ini:

156 *The Beginnings of Science*

organism.

And Professor Driesch also makes a very excellent distinction in his brilliant discussion of the subject by calling attention to the fact that we are dealing with processes and processes only. That a machine as a thing is not a process. The machine made by human hands is made *for processes* and every single process in a machine is purposive.

It is the result of purposive action, of human action, but it is the fact that it is made for processes that distinguishes it from other human artefacts, from works of art for instance.

There are, then, inorganic things, namely, those made by men, which show us processes deserving the predicate purposive. It is clear that here the purposiveness of each single process rests on the specific order of the specific parts of the machine, and is determined by this order. In other words, each single effect in a machine is only purposive in so far as it is part of a higher specific whole; and this is in virtue of the constitution or structure of that whole.

Sumber: Menge, Edward J. 1918: 156. The Beginnings of Science: Biologically and Psychologically Considered. Boston, U.S.A. : The Gorham Press. Gambar disajikan oleh Levri Ardiansyah (2017).

There is an autonomy of the processes of administration (Menge, Edward J (1918: 163).

Administration is not Management

Pada buku karya Marx, Fritz Morstein (1949: 3) berjudul '*Elements of Public Administration. Fourth Printing'* (New York: Prentice-Hall-Inc) terbaca bahwa administrasi merupakan bagian dari semua upaya yang terencana (*administration as part of all planned effort*). Kutipannya tergambar seperti ini:

The Growth of Public Administration

1. ADMINISTRATION—PUBLIC AND PRIVATE

Administration as Part of All Planned Effort. Save for those who drift through life and care not where the current takes them, all men know something from their own experience about the importance and the ways of administering their affairs. For to refuse to let circumstances run some wayward course and to work instead within the limits they impose to attain a more acceptable end—this, at heart, is the idea of administration.

In simplest terms, administration is determined action taken in pursuit of conscious purpose. It is the systematic ordering of affairs and the calculated use of resources, aimed at making those things happen which we want to happen and simultaneously preventing developments that fail to square with our intentions. (It is the marshaling of available labor and materials in order to gain that which is desired at the lowest cost in energy, time, and money.) No man, therefore, who singly or in company with others has ever laid out—or had laid out for him—a course of action and proceeded on it can be without some intimation of the nature of administration. Motivated by their desires and interests, individuals and groups of individuals set themselves their main goals; what they do thereafter to translate these goals into positive achievement is essentially administration.

Sumber: Marx, Fritz Morstein. 1949: 3. Elements of Public Administration. Fourth Printing. New York: Prentice-Hall-Inc. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Marx, Fritz Morstein (1949: 4) berjudul '*Elements of Public Administration. Fourth Printing'* (New York: Prentice-Hall-Inc)

Although the purpose-minded individual has administrative problems in his own life, whether he lives in the modern metropolis or on a farm in Kansas, we usually speak of administration and management in connection with the organization and direction of coöperative or collective activity. The two terms—administration and management—are sometimes used interchangeably. In general, administration is the broader term, embracing such factors as establishing priority of specific goals, devising the most appropriate structural form for the coöperative enterprise, and harnessing the total effort toward attainment of the defined ends. Management, in its distinctive sense, relates primarily to those activities which are designed to make the enterprise succeed within the framework of policy, structure, and resources.

Sumber: Marx, Fritz Morstein. 1949: 4. Elements of Public Administration. Fourth Printing. New York: Prentice-Hall-Inc. Gambar disajikan oleh Levri Ardiansyah (2017).

Beda Ilmu Administrasi

Ilmu Administrasi harus berbeda terhadap ilmu-ilmu lainnya, terutama Sosiologi, Ilmu Politik, Ilmu Pemerintahan, Ilmu Ekonomi, Ilmu Hukum, Antropologi, maupun Geologi. Perbedaan yang saya maksud disini ada pada *the origin* dari masing-masing ilmu terhadap *the origin of administration.*

The Origin of Government

The origin of government dapat terlacak pada fase *the struggle for existence* yang juga dikenal sebagai fase *the struggle for supremacy* yakni fase adanya kecenderungan individu yang berambisi untuk menimbulkan keseganan orang lain terhadap dirinya sembari mengendalikan orang lain. Merunut pemikiran tulisan karya Taylor, Hugh., (MCMXIX: 40) pada bukunya berjudul '*Origin of Government'* (Oxford: B. H. Blackwell, Broad Street) tercetak '*Government originates in that phase of the struggle for existence which is generally known as the struggle for supremacy...*'. Fase ini terbentuk karena adanya keinginan untuk memantapkan *personal superiority.* Pada hewan, *the struggle for existence* tampak pada tindakan bersaing untuk mendapatkan makanan, sedangkan pada manusia, bersaing untuk uang. Kutipannya tergambar seperti ini:

CHAPTER II

ORIGIN OF GOVERNMENT

GOVERNMENT originates in that phase of the struggle for existence which is generally known as the struggle for supremacy: in other words, it originates in the tendency of the stronger and more ambitious individuals to impose their dominating personality on others, and to assume control of those around them. This desire to establish a personal superiority is a phenomenon almost as universal and perhaps more far-reaching than the merely physical competition of organisms against one another. It is generally assumed that the struggle for existence among animals has been replaced among men by a struggle for the means of subsistence. Where animals compete with one another for food, men are supposed to compete with one another for money, which is another form of food. There has, however, existed from the beginning among human beings another struggle, which may be considered as a refined and idealized phase of the struggle for existence, and of which the consequences, though little noticed, are of equal or even of greater importance. This is the passion for that

Sumber: Taylor, Hugh. MCMXIX: 40. Origin of Government. Oxford: B. H. Blackwell, Broad Street. Gambar disajikan oleh Levri Ardiansyah (2017).

Ada juga pemikiran lain berdasarkan *patriachal theory* bahwa *the origin of government is family.* Pada buku karya Taylor, Hugh (MCMXIX: 48) berjudul '*Origin of Government'* (Oxford: B. H. Blackwell, Broad Street) tercetak '*The*

belief that the family is to be regarded as the unit of early society implies the further belief in patrichal theory of the origin of government' seperti ini:

The belief that the family is to be regarded as the unit of early society implies the further belief in the patriarchal theory of the origin of government. This hypothesis, which at one time entirely dominated current thought on the subject, has already lost its former popularity. According to this view, government originated merely in the gradual extension of the power of the head of the family, by a process which gradually converted the paterfamilias into the sceptred King. The speculation has lost ground because, though it is a proper generalization from observed fact, yet the area of observed fact is not sufficiently wide to warrant universality of application. It is a theory based upon an insufficient study of social phenomena in general. Presupposing a peaceful and placid temperament in the individuals composing early society, this hypothesis is weakened in proportion as the evidence accumulates to prove that such an assumption is unwarranted. It is a legitimate

Sumber: Taylor, Hugh. MCMXIX: 48. Origin of Government. Oxford: B. H. Blackwell, Broad Street. Gambar disajikan oleh Levri Ardiansyah (2017).

Setelah fase *the struggle for supremacy* terbentuklah kontrak antara *ruler* terhadap *people.* Hasil kontrak inilah yang merupakan *government.* Merunut pemikiran pemikiran Hobbes, rangkaian tindakan *struggle for supremacy* menunjukan *social contract,* yang kemudian dipikirkan oleh Locke dan Rousseau hingga menjadi teori terbentuknya *government* yakni '*Government was supposed to be the outcome of a contract between ruler and people...*'. Pada buku karya Taylor, Hugh (MCMXIX: 3) berjudul '*Origin of Government'* (Oxford: B. H. Blackwell, Broad Street) tercetak:

Hobbes, it is true, made desperate efforts to keep his view of the social contract in conformity with the actual facts of history, or of what we should now call the evolution of government. But in the hands of Locke and Rousseau this theory is, in fact, nothing more than a piece of imaginary history, supported by the most transparent special pleading, and designed to justify by supposed inductive proofs opinions already regarded as deductively certain. The various forms which the theory assumed agree in the view that government was supposed to be the outcome of a contract between ruler and people, under which the ruler was granted certain privileges on condition of enforcing justice and order, and securing the general well-being of the community. According to the

Sumber: Taylor, Hugh. MCMXIX: 3. Origin of Government. Oxford: B. H. Blackwell, Broad Street. Gambar disajikan oleh Levri Ardiansyah (2017).

Some Axioms of Government

John Merriman Gaus, *Professor of Political Science, University of Wisconsin,* memaparkan 7 aksioma tentang pemerintah yang pernah dikemukakan Charles A. Beard. Pada buku karya Gaus, John Merriman (1947: 7 & 8) berjudul '*Reflections on Public Administration'* (Alabama: University of Alabama Press) tercetak:

THE ECOLOGY OF GOVERNMENT 7

is concretely indicated. More recently, Charles A. Beard formulated some axioms of government in which environmental change is linked with resulting public administration. "I present," he stated, "for what it is worth, and may prove to be worth, the following bill of axioms or aphorisms on public administration, as fitting this important occasion.

"1. The continuous and fairly efficient discharge of certain functions by government, central and local, is a necessary condition for the existence of any great society.

"2. As a society becomes more complicated, as its division of labor ramifies more widely, as its commerce extends, as technology takes the place of handicrafts and local self-sufficiency, the functions of government increase in number and in their vital relationships to the fortunes of society and individuals.

"3. Any government in such a complicated society, consequently any such society itself, is strong in proportion to its capacity to administer the functions that are brought into being.

"4. Legislation respecting these functions, difficult as it is, is relatively easy as compared with the enforcement of legislation, that is, the effective discharge of these functions in their most minute ramifications and for the public welfare.

"5. When a form of government, such as ours, provides for legal changes, by the process of discussion and open decision, to fit social changes, then effective and wise administration becomes the central prerequisite for the per-

8 REFLECTIONS ON PUBLIC ADMINISTRATION

durance of government and society—to use a metaphor, becomes a foundation of government as a going concern.

"6. Unless the members of an administrative system are drawn from various classes and regions, unless careers are open in it to talents, unless the way is prepared by an appropriate scheme of general education, unless public officials are subjected to internal and external criticism of a constructive nature, then the public personnel will become a bureaucracy dangerous to society and to popular government.

"7. Unless, as David Lilienthal has recently pointed out in an address on the Tennessee Valley Authority, an administrative system is so constructed and operated as to keep alive local and individual responsibilities, it is likely to destroy the basic well-springs of activity, hope, and enthusiasm necessary to popular government and to the following of a democratic civilization."[6]

An ecological approach to public administration builds, then, quite literally from the ground up; from the elements of a place—soils, climate, location, for example—to the people who live there—their

[6] Charles A. Beard, "Administration, A Foundation of Government", *American Political Science Review,* XXXIV, No. 2 (April, 1940), 232. This was an address before the joint meeting of the American Political Science Association and the then newly-founded American Society for Public Administration.

Sumber: Gaus, John Merriman. 1947: 7 & 8. Reflections on Public Administration. Alabama: University of Alabama Press.Gambar disajikan oleh Levri Ardiansyah (2017).

The raw material of politics is the machinery of government. Perspektif ini pernah disampaikan sebagai materi perkuliahan oleh Professor Frankfurter dan dicatat oleh A.V. Dewey (1917) pada bukunya berjudul '*Lecturers on the Relation between Law and Public Opinion in England during the Nineteenth Century. 2nd ed*' (London: Macmillan & Co) terbaca '*... the raw material of politics – the nature and extent of the demand made upon the machinery of government, and its environment in which it moves*'. Runutan dan catatan ini tercetak pada buku karya Gaus, John Merriman (1947: 3 & 4) berjudul '*Reflections on Public Administration'* (Alabama: University of Alabama Press) seperti ini:

The effort to relate government functions to the environment is necessary, and the recognition of its validity by various observers and scholars confirms one's own effort.› In the same lecture from which I have already quoted, Professor Frankfurter (as he then was) asserts, "Before we can consider the aptness of political ideas or the adequacy of political machinery, the relevance of past experience or the promise of new proposals, we must be fully alive to what might be called the raw material of politics—the nature and extent of the demands made upon the machinery of government, and the environment in which it moves." A. V. Dicey, in search for the causes of the current which he discerned in English policy in the nineteenth century as a movement from laissez-faire to collectivism, suggested that one

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explanation is "the existence of patent facts which impress upon ordinary Englishmen the Interdependence of Private and Public Interest."[2] Elihu Root,

[2] A. V. Dicey, *Lectures on the Relation Between Law and Public Opinion in England During the Nineteenth Century,* (2nd ed.; London: Macmillan & Co., 1917), Preface to the Second Edition, p. 53.

Sumber: Gaus, John Merriman. 1947: 9 & 10. Reflections on Public Administration. Alabama: University of Alabama Press.Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran pemikiran Gaus, John Merriman (1947), fungsi pemerintah terdiri (1) *people;* (2) *place;* (3) *physical technology;* (4) *social technology;* (5) *wishe and ideas;* (6) *catastrophe* dan (7) *personality.* Pada buku karya Gaus, John Merriman (1947: 9 & 10) berjudul '*Reflections on Public Administration'* (Alabama: University of Alabama Press) tercetak:

With no claim to originality, therefore, and indeed with every emphasis on the collaborative nature of the task, I put before you a list of the factors which I have found useful as explaining the ebb and flow of the functions of government. They are: people, place, physical technology, social technology, wishes and ideas, catastrophe, and personality. I have over many years built up a kind of flexible textbook in a collection of clippings, articles and books illustrative of each, as any one can do for himself. Such illustrations of the "raw material of politics" and hence administration are in themselves the raw material of a science of administration, of that part of the science which describes and interprets why particular activities are undertaken through government and the problems of policy,

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organization and management generally that result from such origins.[7]

Sumber: Gaus, John Merriman. 1947: 9 & 10. Reflections on Public Administration. Alabama: University of Alabama Press.Gambar disajikan oleh Levri Ardiansyah (2017).

Yang dimaksud *people* merupakan fungsi pemerintah adalah '*The changes in the distribution of the people of a governmental unit by time, age, and place throw light on the origins of public policy and administration* ' (Gaus, John Merriman (1947: 10). Termasuk '*... the movement of people from the mother city to suburbs*' maupun '*the old people in the more frequent large family on a farm ... had a function still to perform and more meaningful place in the lives of younger generations of the family* ' (Gaus, John Merriman (1947: 11).
Yang dimaksud *place* merupakan fungsi pemerintah adalah '*changes in place. or the use of the resources and products of place* yang dampaknya ditata berdasarkan *public administration* (Gaus, John Merriman (1947: 13).

Catastrophe, especially when leadership and knowledge are prepared with long-time programs into which the immediate hurried relief action can be fitted ...

(Gaus, John Merriman (1947: 16). Umumnya *catastrophe* ini tampak pada *collective actions.*

Bernard Shaw (1908: xxvii) pada tulisannya berjudul '*Preface for Politicians*' to John Bull's Other Island' (New York: Brentano) tercetak '*Reforms are produced only by catastrophes followed by panics in which 'something must be done*' (Gaus, John Merriman (1947: 20).

"When I pay taxes," wrote Justice Holmes to his friend Sir Frederick Pollock, " I buy civilixation' (Gaus, John Merriman (1947: 19).

Administrative experience menyinari *separation of power.* Ini berarti, *administrative experience* telah ada sebelum terbentuknya *government.* Pada buku karya Gaus, John Merriman (1947: 33 & 34) berjudul '*Reflections on Public Administration'* (Alabama: University of Alabama Press) tercetak:

ment. Our separation of powers system divides the party leadership; but even so, as the Report of the President's Committee on Administrative Management, presented in 1937, stated, there is the positive necessity for the executive leadership to formulate most carefully for the use of the Congress its recommendations in the light of the administrative experience. Inevitably the Bureau of the Budget and the Appropriations Committees of the two houses have a major responsibility in policy clarification and the balancing of the various sectors of policy, since an adequate financial plan must cover all of the activities of government. This need for the close association, in making these difficult political decisions, of legislative and executive party leaders was perhaps first explicitly stated by Edmund Burke, in his *Thoughts on the Cause of the Present Discontents,* issued in 1770 when the need for formulating a theory adequate to the developments in representative government in Great Britain found their

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expression in this classic in our field.[5] "THE DISCRETIONARY POWERS WHICH ARE NECESSARILY VESTED IN THE MONARCH, WHETHER FOR THE EXECUTION OF THE LAWS, OR FOR THE NOMINATION TO MAGISTRACY AND OFFICE, OR FOR CONDUCTING THE AFFAIRS OF PEACE AND WAR, OR FOR ORDERING THE REVENUE, SHOULD ALL BE EXERCISED UPON PUBLIC PRINCIPLES AND NATIONAL GROUNDS, AND NOT ON THE LIKINGS OR PREJUDICES, THE INTRIGUES OR POLICIES, OF A COURT. This, I said, is equal in importance to the securing a government according to law. The laws reach but a very little way. Constitute government how you please, infinitely the greater part of it must depend upon the exercise of the powers which are left at large to the prudence and uprightness of ministers of state. Even all the use and potency of the laws depend upon them. Without them, your commonwealth is no better than a scheme upon paper; and not a living, acting, effective constitution. It is possible, that through negligence, or ignorance, or design artfully conducted, ministers may suffer one part of government to languish, another to be perverted from its pur-

Sumber: Gaus, John Merriman. 1947: 33 & 34. Reflections on Public Administration. Alabama: University of Alabama Press. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran tulisan Gaus, John Merriman (1947: 34) ini, *constitute government must depend upon the exercise of the powers which are left at large to the prudence and uprightness of ministers of state.*

Istilah '*Monarch*' kemudian diperluas maknanya dalam konteks '*executive*' dan istilah '*Minister*' meliputi keseluruhan *civil service.* Pada buku karya Gaus, John Merriman (1947: 35) berjudul '*Reflections on Public Administration'* (Alabama: University of Alabama Press) tercetak:

We may properly substitute for the word "monarch" the broader and more contemporary term "executive," and expand "ministers" to include the entire civil service. The main point is that Burke has made clear the immense importance of executive leadership as political leadership and for the success of the legislature in performing its function of policy determination. Legislators, like the mass of citizens, must have balanced programs responsibly placed before them if they are to be able to make any other than blind choices. Our real problem is partly one of relating knowledge of administrators who have daily acquaintance with the application of laws to the life of the community, and the recommendations of the political executive heads, more responsibly to the legislative process.[7]

Sumber: Gaus, John Merriman. 1947: 35. Reflections on Public Administration. Alabama: University of Alabama Press.Gambar disajikan oleh Levri Ardiansyah (2017).

Combined Operation
Istilah '*Combined Operation*' marak digunakan saat Perang Dunia Ke-2 yang dipahami sebagai *the techniques of visualization, interpretation and evaluation of all the activities of a jurisdiction as a combined operation by the executive chiefs to the legislature and the citizens ehich is their prime political function'.* Pada buku karya Gaus, John Merriman (1947: 35) berjudul '*Reflections on Public Administration'* (Alabama: University of Alabama Press) tercetak:

movements in our states. The fact also that all activity requires financing has made the budget movement at least potentially a movement for the better appraisal, formulation and integration of administrative policies, and in the hands of a few governors it has been useful as a work as well as financial plan. The techniques employed in World War II have given us the term "combined operations." It is the visualization, interpretation, and evaluation of all the activities of a jurisdiction as a combined operation by the executive chiefs to the legislature and the citizens which is their prime political function.

Sumber: Gaus, John Merriman. 1947: 46. Reflections on Public Administration. Alabama: University of Alabama Press.Gambar disajikan oleh Levri Ardiansyah (2017).

Government, State and Empire
Popular Government and Expert Government

Pada buku karya Snow, Alpheus H., (1902: 1 & 2) berjudul '*The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems'* (New York and London: G. P. Putnam's Sons, The Knickerbocker Press) terbaca bahwa *government* dapat dipahami sebagai ekspresi *popular will* ataupun sebagai *expert government. Popular government* merupakan *a government 'by men, not principles'* sedangkan *expert government* merupakan *a government 'by principles, not men'*. Pada *expert government,* kekuasaan dijalankan sesuai kebutuhan politik dan ekonomi berdasarkan *expert knowledge and scientific investigation.* Sedangkan pada *popular government,* kekuasaan yang dijalankan merupakan *absolute power.* Kutipannya tergambar seperti ini:

THE ADMINISTRATION OF DEPENDENCIES

INTRODUCTION

GOVERNMENT may be conceived of either as the expression of the popular will or as a science. Regarding it as the expression of the popular will, there are no principles which determine the decision of its problems other than those which are commonly accepted as such by the people, and each question, as it arises, is to be decided by the light of such ordinary knowledge and capacity for reasoning as the people may happen to have at the moment when the decision is to be made. Regarding government as a science, the problems which arise are decided according to principles which can only be ascertained by study and experience, and which, if properly applied, will lead to a right, as distinguished from a wrong solution. In this view, the depositary of governmental power is required to bring to each problem a knowledge of historical and economic facts and of social, political, and economic principles, a faculty for scientific and judicial investigation, and a trained capacity for reasoning.

Government so constituted that the depositaries of governmental power are persons of ordinary common sense, without expert knowledge and experience, is popular government. Government so constituted that

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the depositaries of governmental power are qualified to decide the problems by expert knowledge, investigation, and reasoning, and actually do so decide them, is expert government.

Popular government implies an absence of conditions concerning the manner of action. No such conditions are possible in the nature of things. A body of men elected to express the will of the people of the State acts necessarily after deliberating concerning facts which are of common knowledge among the people. The power exercised is absolute power, and the persons subject to popular government are subject to mere human will.

Expert government necessarily implies a condition imposed by the people relating to the manner of the exercise of the power granted by them to their governmental agents. The condition is that the depositaries of governmental power shall exercise their power according to the political and economic necessity in each case, as that necessity shall be determined by expert knowledge and scientific investigation.

Popular government is abominable in theory, being a government "by men, not principles," and hence a form of slavery tempered only by the fact that each individual is supposed to participate in his own mastery; but it works well for some purposes, because it encourages each individual to interest himself in the government of the State and calls into play individual initiative. Expert government—government "by principles, not men" —is ideal in theory, but the frailty of man makes this form of government impracticable, and it has the disadvantage of discouraging individual initiative.

Sumber: Snow, Alpheus H. 1902: 1 & 2. The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems. New York and London: G. P. Putnam's Sons, The Knickerbocker Press. Gambar disajikan oleh Levri Ardiansyah (2018).

State

A State is a person, having a body and personality composed of specific lands and the populations inhabiting them. Tanah dan populasi inilah yang membentuk *body and personality of the State.* Pada kenyataannya, *State* dapat menjalankan kekuasaan terhadap tanah dan populasi. Pengertian ini tercetak pada buku karya Snow, Alpheus H., (1902: 6 & 7) berjudul '*The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems'* (New York and London: G. P. Putnam's Sons, The Knickerbocker Press). Kutipannya tergambar seperti ini:

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A State is a person, having a body and personality composed of specific lands and the populations inhabiting them. As respects these specific lands and populations, the power of the State is undoubtedly to be classified in the usual manner as legislative, judicial and executive. But the lands and populations which constitute the body and personality of the State are not the only lands and populations over which it may exercise power. It is a fact that the State may and does exercise power over lands and populations which are not, and cannot, in the nature of things, be a part of the body and personality of the State, and that it may be in a permanent relationship to these lands and populations of such a kind that it must exercise power over them permanently. External lands and populations may be recognized, by the State, as States foreign to itself, with which it may contract; and it may, therefore, recognize itself as under an implied contract by which it is obligated to the external populations which are permanently under its control. Under such express or implied contracts, the State may be obligated to render permanent services to these populations. Such services may be of any kind whatsoever, and do not necessarily involve the doing of acts which can be cer-

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tainly described as either legislative, judicial, or executive acts of the State. In the performance of such functions, the agents of the State are not changing the law of the State, nor interpreting it, nor executing it. They are wielding the power of the State as if the State were a person. They represent the State, as a political person, in the performance of services towards another State, as a political person. The acts of the State done in the performance of those services are all legislative, judicial or executive acts, but they are legislative, judicial or executive acts done not by the State for itself, but by the State for another State. As all agencies of the State belong either to the popular or the expert branch of the Government, the State, in performing such services, necessarily acts either through the popular or the expert branch exclusively, or through one superintended by the other.

All lands and populations subject to the power of a State, but not so related to it that they form by common consent an integral part of the body and personality of the State, which are called the dependencies of the State, are, therefore, capable of being viewed, in their relations to the State, in two different ways. They may be regarded as mere prolongations of the soil of the State, and its powers over them may be regarded as mere extensions of the legislative, judiciary and executive powers of the State. In this view, all inherent political personality of

Sumber: Snow, Alpheus H. 1902: 6 & 7. The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems. New York and London: G. P. Putnam's Sons, The Knickerbocker Press. Gambar disajikan oleh Levri Ardiansyah (2018).

Modern Empire

The study of administation of dependencies is the study of the form and nature of the modern empire. Pada buku karya Snow, Alpheus H., (1902: 8) berjudul '*The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems'* (New York and London: G. P. Putnam's Sons, The Knickerbocker Press) tercetak:

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maintain a distinct Government for itself as a State, or not. On this conception, it is evident that the theory that the power exercised is a mere prolongation or extension of the legislative, judicial, and executive power as it is exercised by the State within itself is not applicable. The State does not exercise its power directly upon the individual inhabitants of the dependencies. There is an intervening personality — a State — between the State and each individual inhabitant of the dependencies, and the State substitutes itself, by its own will or by contract express or implied, for this intervening personality, and exercises within the dependency the legislative, judicial, and executive power in substitution for this personality.

It is even possible to go so far in regarding dependencies as naturally States, as to regard the State as acting within the dependencies wholly by their permission. Such a permissive power is plainly different in character from the legislative, judicial, and executive powers which the State exercises within itself.

A State and its dependencies, in whatever light the latter are regarded, constitute, according to the accepted public law of the civilized world, an Empire. The old conception of an Empire as a Kingdom composed of Kingdoms, and of an Emperor as a King who rules over other Kings, is passing away, and in its stead has come the conception of the Empire as a State composed of distinct and often widely separated populations or States, of which a State is the Central Government or Emperor. The State so acting as the Central Government or Emperor—whatever may be its inner constitution, whether monarchical, oligarchical, republican, whether federal or unitary—is called the Imperial State. The study of the administration of dependencies is in fact, therefore, the study of the form and nature of the modern Empire.

Sumber: Snow, Alpheus H. 1902: 8. The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems. New York and London: G. P. Putnam's Sons, The Knickerbocker Press. Gambar disajikan oleh Levri Ardiansyah (2018).

The Origin of Nations

Ada dua pemikiran tentang *the origin of nations* yakni (1) *the origin of nations is family;* dan (2) *the origin of nations is war.* Pada buku karya Taylor, Hugh (MCMXIX: 51) berjudul '*Origin of Government'* (Oxford: B. H. Blackwell, Broad Street) tercetak '*The origin of nations is tobe found not in the peaceful expansion of the family, but in war ...*' karena tidak ada bangsa yang terbentuk sebagai hasil dari ekspansi keluarga tanpa ada penguatan pihak luar dalam bentuknya berupa diperangi. Kutipannya berupa gambar ini:

Origin of Nations

origin of the nation is to be found not in the peaceful expansion of the family, but in war, and those thinkers are accordingly right who are of opinion that government owes its active development to war. No nation exists, or ever has existed, which is the lineally descended result of the expansion of a family or of any sort of primitive community without reinforcement from outside. Nations come of a forcible fusion formed by the process of war, which restores to the exceptional individual that importance which he may at a certain stage of social evolution temporarily have lost. Granting that the personality of the individual may be for a time submerged in the family or some other form of social group, the value of individual influence and individual strength of character is instantly reaffirmed by the advent of war, where leadership is the decisive consideration. Granting,

Sumber: Taylor, Hugh. MCMXIX: 51. Origin of Government. Oxford: B. H. Blackwell, Broad Street. Gambar disajikan oleh Levri Ardiansyah (2017).

When we are assured that the origin of the nation is in the family, we are naturally led to suppose that the area occupied by any given nation has been filled by the process of peaceful multiplication of the original

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members. There is no considerable nation in history that has ever been formed in this way, certainly none that has ever left its impress on the course of civilization. The belief in peaceful expansion can only be maintained by shutting the eyes to the significance of certain vital facts in the process of nation-building. Desperate conflict and not peaceful expansion has been the normal and habitual means by which a community has attained a size and importance sufficient to enable it to hold its own in the international struggle for existence. The most rudimentary acquaintance with history is sufficient to inform us that the English nation, for instance, did not arise from the gradual enlargement of a single family, clan, or tribe. It was the result of a fusion formed after a desperate struggle for supremacy among various hostile kingdoms, who for centuries conducted an irreconcilable warfare over the geographical area known as England. One of

Sumber: Taylor, Hugh. MCMXIX: 51 & 52. Origin of Government. Oxford: B. H. Blackwell, Broad Street. Gambar disajikan oleh Levri Ardiansyah (2017).

in the England of the ninth century. . . . The same movement showed itself in the neighbouring country of Scandinavia, where the innumerable tribes became gradually consolidated, as the result of hard fighting, into the three historic kingdoms of Norway, Denmark, and Sweden. . . . Much the same appears also to

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have been done in the gradual consolidation of the Celtic tribes of Scotland under the line of Malcolm Canmore, and of the tribes of Wales under the hereditary Princes who were found to be ruling the country at the Norman Conquest."[1] . . . What we now know as the French nation was equally the outcome of a desperate struggle for supremacy between a series of ambitious men supported by their followers. "Modern France was formed by the victory of the Kings at Paris in a struggle, long and profound, with the rulers of the neighbouring fiefs—Burgundy, Champagne, Blois, Aquitaine, Gascony, Toulouse, Brittany, etc."[2] . . . The history of the Romans and of all the other considerable nations of the ancient or modern world is precisely similar. We are here

Sumber: Taylor, Hugh. MCMXIX: 52 & 53. Origin of Government. Oxford: B. H. Blackwell, Broad Street. Gambar disajikan oleh Levri Ardiansyah (2017).

The Origin of Sociology

***What is Society* ?**

Pada awalnya, saat pemikiran tentang induksi Sosiologi tengah hangat-hangatnya menyelimuti atmosfer keilmuan untuk menjelaskan bahwa Sosiologi adalah ilmu, *is question* yang dirumuskan kala itu adalah '*What is society?*'. Hal ini berarti, para ilmuwan sosial kala itu manmpilkan *society* sebagai fakta Sosiologi, yaitu *society* yang terdiri dari sekumpulan manusia sebagai organisme. Oleh karena ini, jawaban atas *is question* berupa pertanyaan keilmuan *'What is Society*' dirumuskan dengan kalimat '*Society is an organism*'. Atas dasar *is question* inilah Sosiologi lalu diakui sebagai ilmu dengan fakta berupa masyarakat yang terdiri dari manusia sebagai organisme. Timbul pertanyaan, mengapa kala itu tidak secara tegas saja merumuskan *is question* dengan pertanyaan keilmuan '*What is human?*'. Bukankah '*human*' lebih jelas sebagai fakta daripada '*society?*'. Bagaimanapun juga *society* sesungguhnya bukan merupakan fakta karena *society* tidak ada benda fisik maupun materinya yang dapat disentuh, dan sebagai konsep pun, *society* adalah konsep tentang masyarakat yang imajiner. Lebih jelas konsep tentang *community* daripada *society.* Tentu saja para ilmuwan sosial kala itu, ingin mengajukan fakta Sosiologi yang nyata-nyata ada benda fisik maupun materinya, yaitu manusia (*human*). Tetapi, manusia sebagai fakta fisik berupa tubuh (*body*) telah menjadi fakta milik Biologi, dan manusia sebagai fakta materi berupa pemikiran (*mind*) telah menjadi fakta milik Psikologi. Sehingga ilmuwan Sosiologi tidak dapat mengajukan manusia sebagai fakta, karena dengan begini, Sosiologi menjadi tidak berbeda dengan Biologi dan Psikologi.

Lalu apa yang memperkuat *is question* ini sehingga Sosiologi diakui sebagai Sosiologi yang merupakan bidang ilmu tersendiri, mandiri dan berbeda dengan ilmu-ilmu lainnya? Dengan menggunakan metode induksi, para ilmuwan sosial kala itu dapat menjelaskan tentang adanya pertumbuhan sosial (*social growth*) yang berbeda dengan pertumbuhan biologis, begitu juga adanya struktur sosial (*social structure*), fungsi-fungsi sosial (*social functions*), sistem organisasi (*systems of organs*), sistem yang berkesinambungan (*the sustaining system*), sistem distribusi (*the distributing system*), sistem aturan (*the regulating system*), tipe pemikiran maupun perspektif yang khas (*social type and constitution*), metamorfosis sosial (*social metamorphoses*) serta adanya kualifikasi (*qualification*) yang amat berbeda dengan ilmu-ilmu lainnya. Rangkaian-rangkaian fakta inilah yang tersusun utuh sebagai fakta masyarakat (*society*) untuk menjawab pertanyaan '*What is a society?*'.

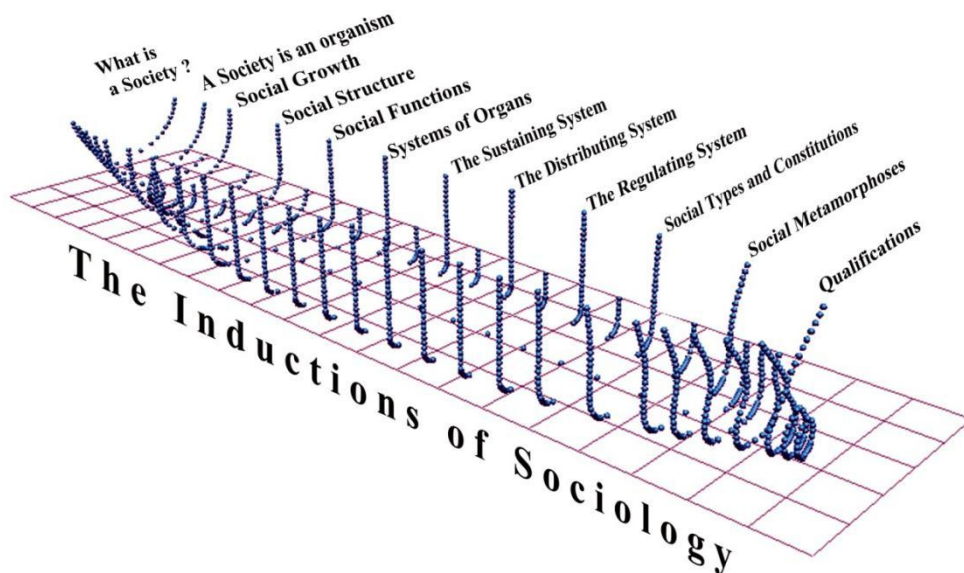
Collins (1889:xvii) dalam bukunya yang berjudul '*An Epitome of the Synthetic Philosophy*' menulis tentang induksi Sosiologi ini yang menjadi dasar pengakuan ilmiah bahwa Sosiologi adalah sebuah ilmu tersendiri yang mandiri.

Berikut ini adalah gambar tentang tulisan Collins ini:

CHAPER XIX. THE INDUCTIONS OF SOCIOLOGY.

What is a society? 389. A society is an organism, 389-91. Social growth, 391-2. Social structures, 392-3. Social functions, 393-4. Systems of organs, 394-5. The sustaining system, 395-6. The distributing system, 396-7. The regulating system, 397-400. Social types and constitutions, 400–2. Social metamorphoses, 402-3. Qualifications and summary, 403-4.

Sumber: Collins, F. Howard. 1889:xvii. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Untuk memperjelas tulisan Collins, saya gambarkan dengan ilustrasi seperti ini:

Sumber: Collins, F. Howard. 1889. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Merunut tulisan Collins (1889:389) induksi Sosiologi dibangun berdasarkan pemikiran tentang Sosiologi sebagai fakta-fakta yang sifatnya umum, terstruktur dan memiliki fungsi-fungsi tertentu yang didapatkan dari hasil survei tentang masyarakat dan perubahan masyarakat (‘*general facts, structural and functional, as gathered from a survey of Societies and their changes* ’) sehingga dengan begini, Sosiologi merupakan fakta berdasarkan generalisasi empiris (*the empirical generalization*) dengan cara membandingkan berbagai masyarakat yang berbeda (*comparing different societies*) dan juga adanya fase-fase berkesinambungan pada suatu masyarakat yang sama (*successive phases of the same society*).

Penetapan *is question* berupa pertanyaan ‘*What is a society?*’, merunut tulisan Collins (1889:389) didasarkan pada argumen ilmiah bahwa ‘*a society*’ adalah sama dengan ‘*a living body*’, sehingga atribut-atribut yang terdapat pada

masyarakat tak ubahnya merupakan atribut-atribut yang terdapat pada tubuh manusia dan dengan begini, maka hubungan-hubungan yang permanen diantara bagian-bagian masyarakat juga analog seperti hubungan-hubungan permanen yang terdapat pada bagian-bagian tubuh manusia (*the permanent relations among the parts of society are analogous to the permanent relations among the parts of a living body*). Atas dasar pemikiran ini, maka *society* dipandang sebagai sebuah entitas (*society is an entity*) yang dibangun oleh unit-unit yang memiliki kebebasan bertindak (*formed of discrete units*) dan mengalami pertumbuhan yang berkesinambungan (*undergoes continuous growth*).

Dapat disimpulkan bahwa indukksi Sosiologi yang dibangun dengan *is question* berupa pertanyaan keilmuan '*What is a society?*' merupakan *question of fact* dengan mendasarkan pada fakta Biologi yaitu *living body.*

A Society is an Organism
Landasan pemikiran bahwa masyarakat mengalami pertumbuhan yang berkesinambungan inilah yang menghasilkan jawaban atas *is question* berupa pertanyaan '*What is a society?*' yang tersusun dengan kalimat tegas yaitu '*a society is an organism*'. Sebagai masyarakat yang terus bertumbuh (*a society grows*) akan terikat pada hukum alam bahwa pertumbuhan menyebabkan munculnya perbedaan, sehingga dengan begini, bagian-bagian dalam masyarakat yang bertumbuh akan menjadi bagian-bagian yang berbeda satu sama lain (*its parts become unlike*) yang ditunjukan dengan adanya peningkatan struktur dalam masyarakat (*its exhibits increase of srtucture*). Kian progresifnya perbedaan-perbedaan pada struktur sosial ini akan diiringi oleh kian progresifnya perbedaan-perbedaan pada fungsi sosial (*progressive differentiation of social structures is accompanied by progressive differentiation of social functions*). Merunut tulisan Collins (1889:390) perbedaan-perbedaan pada fungsi sosial ini bukan merupakan perbedaan yang sederhana (*not simply different*) melainkan perbedaan yang memiliki keterkaitan sehingga memungkinkan satu sama lain dapat terjalin (*as to make one another possible*) dan juga perbedaan fungsi ini dapat menjadi penyebab adanya saling ketergantungan diantara bagian-bagian dalam masyarakat (*this reciprocal aid causes mutual dependence of the parts*). Dengan adanya prinsip *mutually dependent-parts* inilah yang menjadikan manusia sebagai *individual organism* yang hidup bersama manusia lainnya, serta hidup untuk manusia lainnya (*living by and for one another*) hingga secara fisik menimbulkan adanya pembagian kerja (*physiological division of labour*). Oleh karena ini, maka *a social organism* dan *an individual organism* secara keseluruhan adalah serupa.

Pertanyaan selanjutnya adalah bagaimana kombinasi dari tindakan-tindakan *mutually dependent-parts* ini menyusun kehidupan sosial secara keseluruhan? Jika pertanyaan ini telah terjawab, maka timbul pertanyaan selanjutnya yaitu bagaimana dari sini dapat menghasilkan perbedaan yang tak kan pernah dapat dipersamakan (*parallelism*) antara *social life* dengan *animal life?* Terhadap pertanyaan yang pertama, dasar pemikirannya adalah tentang kehidupan yang dijalani oleh setiap unit atau bagian dengan kehidupan sosial secara keseluruhan. Ide ekstrimnya adalah jika terdapat bencana, maka kehidupan sosial secara keseluruhan bisa jadi hancur, nanun tidak serta merta menghancurkan kehidupan unit sosial atau bahkan kehidupan individu. Jika tidak ada bencana, maka kehidupan sosial keseluruhan akan berlangsung lebih lama dari kehidupan unit sosial. Terhadap pertanyaan kedua, dasar pemikirannya adalah bahwa kehidupan masing-masing hewan akan membentuk kehidupan hewan secara keseluruhan (*the parts of an animal form a concrete whole*), namun tidak demikian pada manusia, kehidupan individu sebagai bagian dalam masyarakat memang akan membentuk kehidupan sosial tetapi setiap individu dalam masyarakat tetap saja merupakan bagian yang memiliki kebebasan tersendiri (*the parts of a society form a whole which is discrete*).

CHAPTER XIX.

THE INDUCTIONS OF SOCIOLOGY,

"General facts, structural and functional, as gathered from a survey of Societies and their changes: in other words, the empirical generalizations that are arrived at by comparing different societies, and successive phases of the same society."

I. WHAT IS A SOCIETY?

212. A society is an entity; for, though formed of discrete units, a certain concreteness in the aggregate of them is implied by the general persistence of the arrangements among them throughout the area occupied.

213. The attributes of a society being like those of a living body, the reasons have now to be considered for asserting that the permanent relations among the parts of a society, are analogous to the permanent relations among the parts of a living body.

II. A SOCIETY IS AN ORGANISM.

214. The first trait for regarding a society as an organism, is that it undergoes continuous growth.

215. As a society grows, its parts become unlike: it exhibits increase of structure.

216. This community will be more fully appreciated on observing that progressive differentiation of social structures is accompanied by progressive differentiation of social functions.

217. The functions are not simply different, but their

Sumber: Collins, F. Howard. 1889:389. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Jadi, kata kunci adanya perbedaan kehidupan sosial manusia dengan kehidupan hewan adalah *discrete instead concrete* yaitu kebebasan yang dimiliki individu manusia dibandingkan dengan kehidupan hewan yang apa adanya sebagai keseluruhan. Pertanyaannya adalah bagaimana Sosiologi dapat membuktikan adanya *discrete instead concrete* ini? Merunut tulisan Collins (1889:390) kala itu ilmuwan sosial mengajukan bukti adanya *emotional and intellectual language.* Kedua hal inilah yang merupakan fakta bahwa *mutually dependent-parts* dapat menyusun organisasi sosial secara efektif pada satu sisi dan pada sisi lain keduanya juga dapat merombak organisasi sosial. *Emotion* diajukan sebagai fakta karena Psikologi telah berhasil membuktikan secara ilmiah bahwa *emotion* adalah fakta Psikologi, begitu juga *intellectual language.* Sehingga Sosiologi juga memiliki dasar ilmiah yang kuat dengan mengajukan emosi dan intelektual sebagai fakta *society* dalam Sosiologi. Berdasarkan 2 fakta ini. Sosiologi dapat membagi organisme menjadi 2 jenis, yaitu pertama adalah organisme yang

memiliki kesadaran (*consciousness*) terutama terdapat pada individu sebagai *a small part of the aggregate* dan yang kedua adalah difusi melalui keseluruhan sosial yaitu setiap unit yang memiliki kapasitas untuk bahagia dan kikir pada tingkatan tertentu yang berimbang. Pada jenis yang kedua ini, tidak ada sensor sosial dan karenanya kesejahteraan sosial tidak dapat menjadi tujuan hidup disini. Dapat disimpulkan bahwa penjelasan jawaban *is question* pada induksi Sosiologi didasarkan pada fakta Psikologi yaitu *emotional and intellectual language.*

Pertumbuhan Sosial

Sebagai *living bodies,* pertumbuhan masyarakat juga berawal sebagai benih (*germs*) yaitu bentuk asli massa yang sangat kecil. Ukuran bertambah besar melalu 2 proses, yaitu (1) *sometimes separately* dan (2) *sometimes together.* Ada peningkatan melalui penggandaan unit secara sederhana (*simple multiplication of units*) yang menyebabkan kelompok membesar. Ada juga peningkatan melalui bersatunya kelompok (*union of groups*) yang terjadi secara berulang, yaitu *union of groups of groups.*

Pertumbuhan sosial terus berjalan maju melalui proses percampuran (*compounding*) dan proses percampuran yang berulang (*re-compounding*) seperti halnya integrasi organik dalam Biologi, dari tumbuhan yang paling rendah tingkatannya yang tumbuh dengan cepat hingga memiliki organ berupa daun atau semacam daun (*foliar organs*). Begitu juga pada hewan, yang tumbuh dari hewan terkecil hingga menjadi anggota *annulosa.* Pembentukan masyarakat yang besar merupakan hasil dari bergabungnya masyarakat-masyarakat kecil (*the formation of larger society results by the joining of smaller societies*).

III. SOCIAL GROWTH.

224. Societies, like living bodies, begin as germs—originate from masses which are extremely minute in comparison with the masses which some of them eventually reach.

225. The growths in aggregates of different classes are extremely various in their amounts. We may see this in the animal kingdom, on glancing at the members of the *Protozoa* and *Vertebrata;* and in societies, when we glance at the Wood-Veddahs, living sometimes in pairs, and at those highest societies consisting of aggregated millions.

226. In each case, also, size augments by two processes, which go on sometimes separately, sometimes together. There is increase by simple multiplication of units, causing enlargement of the group; there is increase by union of groups, and again by union of groups of groups. Social growth proceeds by a compounding and re-compounding analogous to that treated of in *Biology,* § § 180-211, where organic integration was traced up from the lowest plants to the shoot with its foliar organs; and from the smallest animals up to the members of the *Annulosa.* The primitive social group, like the primitive group of living molecules with which organic evolution begins, never attains any considerable size by simple increase. The formation of a larger society results only by the joining of smaller societies; a process which may be seen now going on among uncivilized races, as it once went on among the ancestors of the civilized races. Repetition of this process on a larger scale makes secondary aggregates into tertiary ones.

227. There is yet another analogy. Social growth shows the fundamental trait of evolution under a twofold aspect: integration being displayed both in the formation of a larger mass, and in the progress of such mass towards that coherence due to closeness of parts.

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Sumber: Collins, F. Howard. 1889:391-392. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Dapat disimpulkan bahwa pertumbuhan sosial seperti pertumbuhan *living bodies* yang berawal dari benih .

Struktur Sosial
Di dalam masyarakat, yang merupakan *living bodies,* peningkatan massa biasanya diiringi dengan peningkatan struktur (*in societies, as living bodies, increase of mass is habitually accompanied by increase of structure*). Dari kelompok yang sederhana tumbuh menjadi kelompok campuran (*from simple groups to compound groups*). Dari kelompok campuran tumbuh menjadi kelompok ganda campuran (*from compound groups to doubly compound ones*). Kebersamaan sosial merupakan suatu homogenitas manakala ukurannya masih sangat kecil, dan biasanya akan mencapai tahap heterogen sepanjang fase pertumbuhan masing-masing unit sosial. Oleh karena ini, untuk mencapai ukuran sosial yang besar, dibutuhkan kompleksitas yang juga besar (*to reach great size, great complexity is needful*). Pada tahap heterogen dengan kian banyaknya perbedaan, terdapat *coordinating agencies* yang merupakan semacam organ pemelihara (*the organs of alimentation*).

Perbedaan-perbedaan ini terus bergerak maju dari kian umum justru menjadi kian khusus (*these differentiations, in both cases, proceed from the more general to the more special*). Mula-mula setiap bagian meluas dan menunjukan kontras yang sederhana (*simple contrast of parts*) lalu bagian-bagian yang kontras ini berubah dengan cara membentuk divisi yang berbeda (*make unlike division of them*) dan didalam setiap divisi yang berbeda ini terdapat lagi perbedaan meski sedikit (*minor unlikenesses*). Begini seterusnya. Transformasi dari homogenitas menuju heterogenitas merupakan karakter evolusi pada diri individu maupun organisme sosial khususnya dalam menuju tahap pertumbuhan yang lebih tinggi.

Organ-organ yang terdapat pada hewan dan organ-organ yang terdapat pada masyarakat memiliki penataan internal berdasarkan prinsip yang sama (*organs in animals and organs in societies have internal arrangements framed on the same principle*). Pada hewan yang tidak memiliki organ, tetap saja dinyatakan eksis, tetapi hanya berupa jumlah unit yang belum tergabung bersama menjadi satu organ tertentu. Fakta Biologi ini, dijadikan analog dalam Sosiologi diantaranya pada masyarakat industri dengan individu–individu yang bekerja sendiri dan mengatur sendiri produk yang dihasilkannya hingga sampai ke tangan konsumen. Tipe kedua dari *individual organ* ini belajar pada *'The Compact Cluster of Cell'* yang didalam masyarakat ditunjukan dengan adanya kedekatan hubungan (*closely corresponding to it*) dalam bentuk keluarga yang memiliki keterkaitan satu sama lain (*related family*) yang masing-masing memonopoli sektor industri tertentu hingga membentuk *cluster* yang biasanya berada pada satu lokasi yang sama.Tipe ketiga merupakan tipe yang lebih maju, yaitu dari industri rumah tangga menuju industri dengan pabrik-pabrik besar (*from household type to the factory type*).

IV. SOCIAL STRUCTURES.

228. In societies, as in living bodies, increase of mass is habitually accompanied by increase of structure. As we progress from small groups to larger; from simple groups to compound groups; and from compound groups to doubly-compound ones; the unlikenesses of parts increase. The social aggregate, homogeneous when minute, habitually gains in heterogeneity along with each increment of growth. To reach great size, great complexity is needful.

229. Beyond unlikenesses of parts due to development of the co-ordinating agencies, there presently follow unlikenesses among the agencies co-ordinated—the organs of alimentation, etc., in the one case, and the industrial structures in the other.

230. These differentiations, in both cases, proceed from the more general to the more special. First broad and simple contrasts of parts; then within each of the parts primarily contrasted, changes which make unlike divisions of them; then within each of these unlike divisions, minor unlikenesses; and so on continually. The transformation of the homogeneous into the heterogeneous, characterizes the evolution of individual and social organisms in especially high degrees.

231. Organs in animals and organs in societies have internal arrangements framed on the same principle. Each viscus contains appliances for bringing nutriment, for carrying away the product, and for regulating its activity. And the clustered citizens forming an organ which produces some commodity for national use, has within it subservient structures substantially like those of each other organ carrying on each other function.

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Sumber: Collins, F. Howard. 1889:392. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Dapat disimpulkan bahwa dalam merumuskan teori, Sosiologi belajar pada fakta-fakta Biologi .

Fungsi-Fungsi Sosial

V. SOCIAL FUNCTIONS.

234. We come now to those functional traits which are not manifestly implied by traits of structure.

235. As evolution advances, the *consensus* of functions in the individual and the social organism becomes closer. When a Rhizopod is accidentally divided, each division goes on as before. A headless wandering group of primitive men also divides without any inconvenience. With highly-organized aggregates however it is very different. We cannot cut a mammal in two without causing immediate death. Middlesex separated from its surroundings would, in a few days, have all its social processes stopped by lack of supplies.

236. Another corollary must be named. In proportion as the units forming any part of an individual organism are limited to one kind of action, as that of absorbing, or secreting, or contracting, or conveying an impulse, and become adapted to that action, they lose adaptation to other actions. And in the social organism the discipline required for effectually discharging a special duty, causes unfitness for discharging special duties widely unlike it.

237. Let us bear in mind that with the advance of organization, every part, more limited in its office, performs its office better; and that the total activity we call life, individual or national, augments with it.

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Sumber: Collins, F. Howard. 1889:393-394. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Sistem Organ

outer and inner. Masters as outer. Slave as inner.

after the outer and inner systems begins to develop and facilitates their co-operation

VI. SYSTEMS OF ORGANS.

237*a*. As with individual organisms so with social organisms; however unlike they finally become, they begin their developments in like ways.

238. We have seen (*First Principles*, § § 149-152, and *Biology*, § § 287-9) the primary organic differentiations which arise in correspondence with the primary contrasts of conditions among the parts, as outer and inner. The early stages which occur in the evolution of social organisms are analogous in principle. There are the masters who, as warriors carry on the offensive and defensive activities and thus especially stand in relation to environing agencies; and the slaves who carry on inner activities for the general sustentation, primarily of their masters and secondarily of themselves.

239. After the outer and inner systems have been marked off from one another, the distributing system, lying between the two, begins to develop and facilitates their co-operation. It will be sufficient to note, passing over the individual distributing system, that the lowest social types have no distributing systems—no roads or traders exist; but, with the localization of industries, appliances for transferring commodities begin to show themselves.

240. Moreover, these systems arise in the social organism in the same order as in the individual organism; and for the same reasons. After the class of masters and the class of slaves has developed, a larger society can grow and complicate only on condition that the transferring system makes proportionate advances. Let us trace out the evolution of each of these three systems.

Sumber: Collins, F. Howard. 1889:394-395. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Sistem yang Berkesinambungan

Intinya, *the partw carrying on alimentation in a living body.*

Alimentary structures differentiate and develop in a manner quite unlike that followed by regulating structures.

VII. THE SUSTAINING SYSTEM.

241. The parts carrying on alimentation in a living body, and the parts carrying on productive industries in the body politic, constitute, in either case, a sustaining system. In the digestive system of an animal the foreign substances serving for sustentation, on which its interior operates, determine the general and special characters of that interior. And so with the industrial system of a society; its activities and correlative structures are determined by the minerals, animals, and vegetals, with which its workers are in contact; and its industrial specializations are determined by differences in the local products those parts have to deal with.

242. There is a further common trait. Alimentary structures differentiate and develop in a manner quite unlike that followed by regulating structures. As the alimentary organs in the higher *Annulosa* have entirely lost their original relations to the segments or somites; so the industrial structures which arise in a large society, formed by permanent consolidation of small societies, extend themselves without reference to political divisions, great or little.

243. The significance of the antithesis, that while the material environment determines the industrial differentiations, it does not determine the regulative or governmental structures, will be pointed out when the evolution of these latter are traced.

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Sumber: Collins, F. Howard. 1889:395-396. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Sistem Distribusi
so long there is littel or no differentiation of parts, there is little or no need fo channels of communication among the parts

VIII. THE DISTRIBUTING SYSTEM.

244. We have next to observe the parallelisms between the individual and the social distributing systems, in their successive stages.

245. In both cases, so long as there is little or no differentiation of parts, there is little or no need for channels of communication among the parts; neither is there any demand for appliances for transfer when the unlike parts are in close contact. But when the division of labour, physiological or sociological, has so far progressed that parts at some distance from one another co-operate, the growth of channels of distribution—the vascular system in considerably developed animals, and the roads and railways in considerably developed societies—with agents effecting distribution, becomes necessary; and the development of the distributing system has to keep pace with the other developments.

246. A like necessity implies a like parallelism between the progressing circulations in the two cases. Feeble activities, small amounts of exchange, and obstacles to transfer, unite in preventing at first anything more than very slow and irregular repletions and depletions, now at one place now at another. But with an increased amount of general life, there goes an increased need for large distributions in constant directions. Hence, irregular, weak, and slow movements at long intervals, are changed into a regular rapid rhythm by strong and unceasing local demands.

Sumber: Collins, F. Howard. 1889:396. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Sistem Pengaturan
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IX. THE REGULATING SYSTEM.

249. How the evolution of the structures carrying on outer actions is determined by the environment, has now to be seen. How the regulating and expending systems, the nervo-motor in the one case, and the governmental-military in the other, are developed.

250. Successive improvements of the organs of sense and motion, and of the internal co-ordinating apparatus which uses them, have indirectly resulted from the antagonisms and competitions of organisms with one another. And everywhere the wars between societies originate governmental structures, and are causes of all such improvements in those structures as increase the efficiency of corporate action against environing societies. The induction here to be remembered is, that as in the individual organism that nervo-muscular apparatus which carries on conflict with environing organisms, begins with, and is developed by, that conflict; so the governmental-military organization of a society, is initiated by, and evolves along with, the warfare between societies. Or, to speak more strictly, there is thus evolved that part of its governmental organization which conduces to efficient co-operation against other societies.

251. The subordination of local governing centres to a general governing centre, accompanies co-operation of the components of the compound aggregate in its conflicts with other like aggregates. So long as the subordination is established by internal conflict of the divisions with one another, and hence involves antagonism among them, it remains unstable; but it tends towards stability in proportion as the regulating agents, major and minor, are habituated to combined action against external enemies.

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Sumber: Collins, F. Howard. 1889:397-398. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Tipe Pemikiran Sosial dan Konstitusi

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X. SOCIAL TYPES AND CONSTITUTIONS.

256. Primarily, societies may be arranged according to their degrees of composition, as simple, compound, doubly-compound, trebly-compound; and secondarily, though in a less specific way, into the predominantly militant, or predominantly industrial.

257. From the primary classification emerge certain generalizations:—That there are societies of these different grades of composition; that those of the same grade have general resemblances in their structures; and that they arise in similar order. The stages of compounding and re-compounding have to be passed through in succession. Above the simple group the first stage is a compound group inconsiderable in size. The mutual dependence of parts which constitutes it a working whole, cannot exist without some development of lines of intercourse and appliances for combined action; and this must be achieved over a narrow area before it can be achieved over a wide one. When a compound society has been consolidated by the co-operation of its component groups in war under a single head, it becomes practically a single one. By conquest, or by federation in war with other societies of the same order, may be formed societies of the doubly-compound type. And at later stages, by kindred steps, arise still larger aggregates having still more complex structures. In this order has social evolution gone on, and only in this order does it appear to be possible.

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Sumber: Collins, F. Howard. 1889:400. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Metamorfosis Sosial

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XI. SOCIAL METAMORPHOSES.

264. With social organisms, as with individual organisms, the structure becomes adapted to the activity. If circumstances entail a fundamental change in the mode of activity, there by-and-by results a fundamental change in the form of structure; and there is a reversion towards the old type if there is a resumption of the old activity.

265. When glancing at the social metamorphoses that follow altered social activities, we must bear in mind those resistances to change which the inherited social type offers, and also those resistances to change caused by partial continuance of old conditions. Further, we must anticipate reversion if the old conditions begin again to predominate.

266. Of chief interest here, are the transformations of the militant into the industrial and the industrial into the militant. That revived belligerent habits re-develop the militant type of structure is evident if we contrast the period from 1815—the commencement of the long peace—to 1850, with the period from 1850 to the present time. We cannot fail to see that in Great Britain, along with increased armaments, more frequent conflicts, and revived military sentiment, there has been a spread of compulsory regulations. While nominally extended by the giving of votes, the freedom of the individual has been in many ways actually diminished; both by restrictions which ever-multiplying officials are appointed to insist on, and by the forcible taking of money to secure for him, or others at his expense, benefits previously left to be secured by each for himself. Undeniably this is a return towards that coercive discipline which pervades the whole social life where the militant type is predominant. It also shows how a partially-developed industrial type retrogrades towards the militant type if international conflicts recur.

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Sumber: Collins, F. Howard. 1889:402-403. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Kualifikasi
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XII. QUALIFICATIONS AND SUMMARY.

268. One who made the analogies between individual organization and social organization his special subject, might carry them further in several directions. We may now however leave the comparison as it stands.

269. Here let it be once more distinctly asserted that there exist no analogies between the body politic and a living body, save those necessitated by that mutual dependence of parts which they display in common. Though, in foregoing divisions, sundry comparisons of social structures and functions to structures and functions in the human body, have been made, they have been made only because structures and functions in the human body furnish familiar illustrations of structures and functions in general. Community in the fundamental principles of organization is the only community asserted.

270. Comparisons of societies in their ascending grades, have made manifest certain cardinal facts respecting their growths, structures, and functions—facts respecting the systems of structures, sustaining, distributing, and regulating, of which they are composed : respecting the relations of these structures to the surrounding conditions and the dominant forms of social activities entailed ; and respecting the metamorphoses of types caused by changes in the activities. The inductions arrived at, constituting in rude outline an Empirical Sociology, show that in social phenomena there is a general order of coexistence and sequence ; and that therefore social phenomena form the subject-matter of a science reducible, in some measure at least, to the deductive form.

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Sumber: Collins, F. Howard. 1889:403-404. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Pada buku karya Menge, Edward J (1918: 21) berjudul '*The Beginnings of Science: Biologically and Psychologically Considered'* (Boston, U.S.A. : The Gorham Press) terbaca bahwa Sosiologi merupakan bagian dari Biologi. Cetakan tulisan Menge, Edward J ini terkutip berupa gambar ini:

Biology comes from the Greek words "Bios" and "Logos." The former meaning "life" and the latter "a discourse"; or as we usually say, "ology" means "science of". So then, we have Biology meaning the "science of life", that is, the study of *all living things, both plants and animals.* In fact the usual preliminary course in Biology consists of Botany (the study of plant life) and Zoology (the study of animal life), while under these headings we have as principal divisions, such subjects as Anatomy (the study of every separate division of the plant or animal body as displayed after death by dissection), Physiology (the study of the functions of the living plant or animal), Embryology (the study of the plant

or animal from the moment of conception until the time it is ready to lead a more or less independent existence as an individual), Taxonomy (the study of classification, so that one may at a moment's notice know how to arrange any new structure found, though never having seen it before), Pathology (the study of diseased tissues), Histology (the study of the cellular structure of normal tissues), Bacteriology (the study of minute plant life), Psychology (the study of mental phenomena), and Sociology (the study of group formation, or social organization).

Sumber: Menge, Edward J. 1918: 21 & 22. The Beginnings of Science: Biologically and Psychologically Considered. Boston, U.S.A. : The Gorham Press. Gambar disajikan oleh Levri Ardiansyah (2017).

The Origin of Psychology

Dalam perjalanan sejarahnya membuktikan diri sebagai ilmu, Psikologi mendasarkan konsep-konsepnya pada Ilmu Fisika, diantaranya adalah interpretasi tentang *mind-term* dalam dualisme antara *mind and body.* Baldwin (1913:xii) dalam bukunya berjudul '*History of Psychology A Sketch and an Interpretation'* menjelaskan seperti ini: '*It leads to the consideration of physical science as the development of the theory of the matter-term of the same dualism*'. Kutipan penjelasan Baldwin dalam kata pengantarnya dapat dibaca pada gambar berikut ini:

the history of psychology considered as the rise and interpretation of the mind-term [1] in the dualism of mind and body—this point of view I have been interested in carrying out. The merely narrative sort of history-writing—useful as its results are—makes no appeal to many, among whom I count myself. In a subject like psychology it is peculiarly futile, since the views and theories of men cannot be ascertained and reported as earthquakes and battles can. They are themselves matter of interpretation.[2] Had it not been, therefore, for the larger interest in the principle of interpretation, I should not have cared to undertake the task. The

[1] It leads to the consideration of physical science as the development of the theory of the matter-term of the same dualism, a correlation merely hinted at in certain places in passing.

Sumber: Baldwin, James Mark. 1913:xii. History of Psychology A Sketch and an Interpretation. London: Watt & CO. Reprint by Forgotten Books, London (2013). Gambar dibuat oleh Levri Ardiansyah (2016).

Wilhelm Wundt (1879) yang mengembangkan *experimental psychology* memfokuskan pikirannya pada kata "*The Will and Volition"* dan menemukan keterkaitannya dengan kata "*motives, impulse and actions".* Sebelumnya Wundt (1874) gencar menjelaskan bahwa pernyataan "*a person's mental preparation impacts the way the person respond to stimuli"* adalah sebuah fakta, bukan pernyataan semata. Ludwig Lange (1888) menyebut Wundt sebagai "*The First Experiment in Volitional Psychology".* Muller & Schumann (1889) dan Muller & Pilzecker (1900) meneliti *motor set and perseverative tendencies* yang patut dipertimbangkan sebagai *extra associationistic principles* dalam *thought and action. Perseveration* ini merupakan kecenderungan yang berasal dari pengalaman subjektif individu, untuk tetap melanjutkan aktivitas mental tertentu tanpa kemampuan untuk merubah sedikit saja pendiriannya (*the tendency of an experience to persist of an individual to continue a particular mental activity without the ability to shift easily to another at a change of stimulus).*

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Pada buku karya Menge, Edward J (1918: 35) berjudul ‘*The Beginnings of Science: Biologically and Psychologically Considered’* (Boston, U.S.A. : The Gorham Press) terbaca adanya sesuatu dibalik fakta fisik (... *there was something beyond the physical alone*), bahwa fisik mata memang dapat digunakan untuk melihat, namun kemampuan mata ini tergantung pada *image*. Sehingga objek yang mata lihat, sesungguhnya tidak masuk mata, *image*-lah yang melakukannya. Cetakan tulisan Menge, Edward J ini terkutip berupa gambar ini:

It is upon Psychology then, that philosophy largely rests, for certainly if there be no “mind”—that is, no thinking self—we could have no philosophy at all. So nearly three thousand years ago the Grecian sages saw with their “mental eye” that there was something beyond the physical alone. They realized that the physical eye could but throw an image; that the object itself at which one looked did not enter the eye—only the image did that. They found that more or less rapid movements of air were converted into sound when the ear was normal, and they set about trying to find why this was so.

Sumber: Menge, Edward J. 1918: 35. The Beginnings of Science: Biologically and Psychologically Considered. Boston, U.S.A.: The Gorham Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Menge, Edward J (1918: 35 & 36) berjudul '*The Beginnings of Science: Biologically and Psychologically Considered'* (Boston, U.S.A. : The Gorham Press) tercetak '*This was the birth of Psychology, as a defined part of Philosophy, but what we now qualify by calling Rational or Philosophical Psychology*'. Kutipannya tergambarkan seperti ini:

This was the birth of Psychology, as a defined part of Philosophy, but what we now qualify by calling Rational or Philosophical Psychology. It merely tried to explain through the process of reasoning and not by experiment, and this method has come down to us through the ages, honored by the greatest minds of all times, and still dominating the great mass of men and women. But, while experimentation has not been able to overpower reason, the methods of the past have fallen into neglect and so we, who place reason on the highest pinnacle, must experiment, in order that the truths of the past doctrines may not be lost. Men do not often accept *a priori* reasoning now. They want *to see* the evidence. They cannot sustain the great mental lengths of the past and reason it all out. It must be placed before them in as simple a form mentally as we explain physical things to the infant, so that some have thought that by actual non-use of our reasoning powers we are as a people, descending in the realm of the intellect while ascending in the realm of the application of the things we do hold.

Sumber: Menge, Edward J. 1918: 35 & 36. The Beginnings of Science: Biologically and Psychologically Considered. Boston, U.S.A.: The Gorham Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Tak ubahnya seperti Psikologi, saya pikir administrasi juga merupakan bagian dari filosofi, hingga dapat saya tuliskan sebagai *phylosophical administration*

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Pada buku karya Menge, Edward J (1918: 36) berjudul '*The Beginnings of Science: Biologically and Psychologically Considered'* (Boston, U.S.A. : The Gorham Press) tercetak '*And so Modern Psychology or Experimental Psychology, or Physiological Psychology, all meaning practially the same thng, was born in the laboratory*'. Kutipannya tergambarkan seperti ini:

And so Modern Psychology, or Experimental Psychology, or Physiological Psychology, all meaning practically the same thing, was born in the laboratory. It should rather be said that the laboratory was its mother and insanity its father, for if, as Dr. Henry Smith Williams contends, Modern Psychology was born in the year 1795, when Dr. Pinel removed the shackles from the insane in Paris, and if, as will be observed in his statement of that event, all the past was to be heartily condemned, we can read into it all, it would seem, the ideas of one who is not very familiar with either what the past stood for or attempted, but whose view, nevertheless, is the prevailing one; he says: "And so it chanced that in striking the shackles from the insane, Pinel and his confreres struck a blow also, unwittingly, at time-honored philosophical traditions. The liberation of the insane from the dungeons was an augury of the liberation of psychology from the musty recesses of metaphysics. Hitherto, psychology, in so far as it existed at all, was but the subjective study of individual minds: in the future it must become objective as well, taking into account also the relations which the mind bears to the body and in particular to the brain and nervous system."[8]

Sumber: Menge, Edward J. 1918: 36. The Beginnings of Science: Biologically and Psychologically Considered. Boston, U.S.A.: The Gorham Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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The Substance of Mind

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CHAPTER X.

THE INDUCTIONS OF PSYCHOLOGY.

"A digest of such generalizations respecting mental phenomena as have already been empirically established."

I. THE SUBSTANCE OF MIND.

58. "Substance of Mind" may mean Mind as qualitatively differentiated in each portion that is separable by introspection but seems homogeneous and undecomposable, or, the underlying something of which these distinguishable portions are formed, or of which they are modifications.

59. Taking the latter proposition, nothing is, or can be, known of the substance of Mind. For the smallest degree of conceivable knowledge implies at least two things between which some community is recognized. Thus, to know the substance of Mind is to be conscious of some community between it and some other substance. Which is impossible. It must equally remain unknowable if, with the Idealist, we say that there exists no other substance; or, if we hold with the Realist that Being is fundamentally divisible into that which is present to us as Mind, and that which, lying outside of it, is not Mind.

60. Let us now turn to that partial knowledge of the particular states of mind, as qualitatively characterized, which lies within our possible grasp. Although the individual sensations and emotions, real or ideal, of which consciousness is built up, appear to be severally simple, homogeneous, unanalyzable, or of inscrutable natures, yet they are not so. There is at least one kind of feeling, musical sound, which

Sumber: Collins, F. Howard. 1889:200 An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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The Composition of Mind

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II. THE COMPOSITION OF MIND.

64. Accepting as really simple those constituents of Mind which are not decomposable by introspection, we have to consider what are their fundamental distinctive characters, and the essential principles of arrangement among them.

65. The proximate components of Mind are of two broadly-contrasted kinds: *Feelings* and the *Relations between Feelings* (commonly called Cognitions). Each feeling is any portion of consciousness which has a perceivable individuality; which is qualitatively contrasted with adjacent portions of consciousness; and which, when introspectively contemplated, appears to be homogeneous. A relation between feelings is, on the contrary, characterized by occupying no appreciable part of consciousness. Take away the terms it unites, and it disappears along with them; having no independent place—no individuality of its own.

66. Simple feelings may be divided into the centrally-initiated, or Emotions; and the peripherally-initiated, or Sensations. Sensations may be grouped into the epi-peripheral and the ento-peripheral, according as they arise on the exterior, or in the interior of the body. In contrast with this class of primary or real feelings, thus divided and subdivided, has to be set the complementary class of secondary or ideal feelings, similarly divided and subdivided.

Sumber: Collins, F. Howard. 1889:202 An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

The Relativity of Feelings

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III. THE RELATIVITY OF FEELINGS.

77. Having contemplated Feelings in their relation to one another as components of consciousness, we have now to contemplate the nature of the connexions between feelings, and forces existing outside the organism.

78. The general truth to be presented under its many aspects, is that though internal feeling habitually depends on external agent, yet there is no likeness between them either in kind or degree.

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79. It is almost needless to say that the connexion between the outer agent and the inner feeling generated by it, depends on the structure of the species. Obviously, an odour inappreciable to man, may have a very marked effect on the consciousness of a dog.

80. Besides concluding that in no two species are the subjective effects produced by given objective actions absolutely alike, qualitatively and quantitatively, we may conclude that they are absolutely alike in no two individuals of the same species.

81. Even in the same individual, the quantity, if not the quality, of the feeling excited by an external agent constant in kind and degree, varies according to the constitutional state.

82. The kind and degree of effect depends also on the part of the organism subject to it. A whiff of ammonia coming in contact with the eyes, produces a smart; getting into the nostrils, excites the consciousness of a strong odour; being condensed on the tongue, generates an acrid taste; while ammonia applied in solution to a tender part of the skin, makes it burn, as we say.

Sumber: Collins, F. Howard. 1889:205-206 An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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The Relativity of Relations Between Feelings

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IV. THE RELATIVITY OF RELATIONS BETWEEN FEELINGS.

89. It has now to be shown that, in like manner, the forms and degrees of relations between feelings are determined by the nature of the subject—exist, as we know them, only in consciousness, and no more resemble the connexions between outer agents than the feelings they unite resemble these outer agents.

90. What we conceive as space-relations, cannot be, either in their natures or degrees, like those connexions among external things to which they are due. They change both qualitatively and quantitatively with the structure, the size, the state, and the position, of the per-

Sumber: Collins, F. Howard. 1889:207 An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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The Revivability of Feelings

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V. THE REVIVABILITY OF FEELINGS.

96. When vivid forms of feelings have been experienced, how does it happen that faint forms of feelings like them, afterwards arise? The inquiry is—What determines this revivability?—What conditions are they which render the revivals more or less distinct?

97. Speaking generally, feelings are revivable in proportion as they are relational. The peripherally-initiated feelings of external origin are more representable than those of internal origin; and both of these can be represented with greater facility than the centrally-initiated feelings. A particular muscular effort cannot be represented as quickly or as clearly as a particular sound or colour. An emotion cannot be at once revived in the same way that a feeling of light or sound can.

Sumber: Collins, F. Howard. 1889:209 An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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The Revivability of Relations Between Feelings

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THE INDUCTIONS OF PSYCHOLOGY. 211

VI. THE REVIVABILITY OF RELATIONS BETWEEN FEELINGS.

104. The revivability of relations as dissociated, little or much, from related feelings, has here to be considered.

105. Relations in general are more revivable than feelings in general. Whether it be a compound relation of Coexistence, of Sequence, or of Difference, the relation is more distinctly representable, and more enduring in memory, than are its terms. Were it not so, complex thinking would be greatly impeded, if not prevented, by the encumbrance of materials.

106. As with feelings so with relations. The most relational are the most revivable. Relations of Coexistence have a revivability far exceeding that of all other relations. Relations of Sequence, less relational, are less revivable. Simple relations of Difference (those between feelings) are not so revivable as relations of Difference between coexistences, or between sequences, nor as the relations of Coexistence and Sequence themselves.

Sumber: Collins, F. Howard. 1889:211 An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

The Associability of Feelings

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VII. THE ASSOCIABILITY OF FEELINGS.

111. We now come to certain further truths of the phenomena of Association, about which so much has been already implied.

112. Associability and revivability go together; hence the conditions that favour revivability are those which favour associability. These, both psychological and physiological, having been enumerated in the last division, may be passed over.

113. In every simple association there are two constant elements directly presented by it—the feelings and the relations between them; and two constant elements indirectly implied by it—the previously experienced similar feelings and previously experienced similar relations. Let us first consider how the feelings, past and present, comport themselves towards one another.

114. Members of the three great groups of feelings severally associate themselves with the class, sub-class, and sub-sub-class of their own group. A law holding down to the most minute divisions of kind and quality. This is less manifestly true of the emotions than of the other feelings, for the sufficient reason that they are the least relational; while conversely, this integration is most conspicuous in the epi-peripheral, the most relational, feelings. When we look at the sky, we think of its colour as a feeling of external origin, as belonging to the feelings called visual, and to the group of these called blues: it does not suggest reds or yellows, and refuses to unite with them in consciousness.

Sumber: Collins, F. Howard. 1889:212 An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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The Associability of Relations Between Feelings

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VIII. THE ASSOCIABILITY OF RELATIONS BETWEEN FEELINGS.

117. The associability and revivability of relations between feelings similarly vary together.

118. That the most relational of relations are the most associable is a truism; for the relations which enter into relation with one another most easily are the relations most easily associable with one another. The most relational of relations are those of Coexistence as visually presented; and these are associable with extreme facility. Relations of Sequence are associable into simple combinations with less facility. There is also considerable associability of coexistences with sequences.

119. Every relation, like every feeling, on being presented to consciousness, associates itself with like predecessors. Knowing a relation, as well as knowing a feeling, is the assimilation of it to past kindred exactly like it. But since within each great class the relations pass one into another insensibly, there is always, in consequence of the imperfections of our perceptions, a certain range within which the classing is doubtful—a certain cluster of relations nearly like the one perceived, which become nascent in consciousness in the act of assimilation. Along with the perceived position in Space or Time the contiguous positions arise in consciousness.

Sumber: Collins, F. Howard. 1889:213 An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Pleasures and Pains

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IX. PLEASURES AND PAINS.

122. Just as the division of Feelings into real and ideal, cuts across the divisions into central and ento- and epi-peripheral; so here, the division of Feelings into pleasurable and painful, traverses all other lines of demarcation.

123. What are the states which yield Pains and what are the states which yield Pleasures? Recognizing, at the one extreme, the negative pains of inactions, called cravings, and, at the other extreme, the positive pains of excessive actions, the implication is that pleasures accompany actions lying between these extremes. Generally speaking, pleasures are the concomitants of medium activities, where the activities are of kinds liable to be in excess or in defect; and where they are of kinds not liable to be excessive, pleasure increases as the activity increases, except where the activity is either constant or involuntary.

124. That pains are the correlatives of actions injurious to the organism, while pleasures are the correlatives of actions conducive to its welfare; is an induction not based on the vital functions only. It is an inevitable deduction from the hypothesis of Evolution, that races of sentient creatures could have come into existence under no other conditions.

Sumber: Collins, F. Howard. 1889:214 An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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The Origin of Biologi

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Growth or Increase of Bulk

CHAPTER IV.

THE INDUCTIONS OF BIOLOGY.

An account, and further development, of the leading generalizations which naturalists, physiologists, and comparative anatomists have established; with such deductive interpretations as *First Principles* furnish.

I. GROWTH, OR INCREASE OF BULK.

43. Perhaps the widest and most familiar induction of Biology is that organisms grow. While, however, this is a characteristic so habitually and markedly displayed by plants and animals, as to be carelessly thought peculiar to them, it is really not so. Under appropriate conditions, increase of size takes place in inorganic aggregates, as well as in organic aggregates. Crystals grow; and often more rapidly than living bodies. Growth is indeed a concomitant of Evolution; and if Evolution of one kind or other is universal, growth is universal—universal, that is, in the sense that all aggregates display it in some way at some period. The several conditions by which the phenomena of organic growth are governed, conspiring and conflicting in endless different ways and degrees, qualify more or less differently each other's effects. Hence the following generalizations must be taken as true on the average, or, other things equal, first, that growth being an integration with the organism, of such environing matters as are of like nature with the matters composing the organism, its growth is dependent on the available supply of such matters. Second, that the available supply of assimilable matters being the same, and other conditions not dissimilar, the degree of growth varies according to the surplus of nutrition over expenditure.

Sumber: Collins, F. Howard. 1889:80. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Development or Increase of Structure

II. DEVELOPMENT, OR INCREASE OF STRUCTURE.

50. Our general conceptions of Development will be aided by an approximate classification of its modes. Development is primarily *central.* All organic forms of which the entire history is known, set out with a symmetrical arrangement of parts round a centre. According as the germ product develops symmetrically round one centre, or in subordination to many centres, it becomes *unicentral,* an uncommon form, or *multicentral.* Multicentral development is divisible into *continuous* and *discontinuous,* as the whole product of a germ coheres in one mass, as it does in the lichens, or as it does not, in the *Protozoa.* From these forms we pass almost insensibly to that higher kind called *axial,* manifested alike in Endogens, Exogens, Cœlenterates, and Vertebrates. As before, the whole germ product may arrange itself round one, or round many axes—may be *uniaxial,* as in *Fungi, Algæ,* and the higher animals; or *multiaxial,* as in *Cœlenterata Molluscoida,* and the shrubs and trees. This latter may be either *continuous* or *discontinuous:* the parts having different axes may continue united, or may separate. The garden plants, and the compound *Hydrozoa* and *Actinozoa* showing the former; the fresh-water polype, and the strawberry with its bud-bearing shoots, the latter. Though Evolution renders an arrangement free from anomalies impossible, the following rough grouping of the facts will be of service when we come to treat of Individuality and Reproduction:—

Development is
- Central
  - Unicentral
  - or
  - Multicentral
    - Continuous
    - or
    - Discontinuous
- or
- Axial
  - Uniaxial
  - or
  - Multiaxial
    - Continuous
    - or
    - Discontinuous

Sumber: Collins, F. Howard. 1889:82-83. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Function

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contained in the organism, those required by this particular organ. A selective assimilation illustrating the general truth that like units tend to segregate; and that the pre-existence of a mass of certain units, produces, probably by polar attraction, a tendency for diffused units of the same kind to aggregate with this mass, rather than elsewhere.

III. FUNCTION.

55. Prof. Huxley has remarked of the lowest Rhizopods, which present no distinctions of parts, and nevertheless feed and grow and move about, that they exhibit Life without organization. Consequently, Function must be regarded as taking precedence of Structure, and not Structure of Function.

56. Function may be classed as *statical,* as that of the skeleton, or *dynamical,* as that of nutrition. From another point of view, Function is divisible into three most general divisions; the *accumulation of force* (latent in food); the *expenditure of force* (latent in the tissues and certain matters absorbed by them); and the *transfer of force* (latent in the prepared nutriment or blood) from the parts which accumulate to the parts which expend.

57. The first induction to be here set down, is the familiar and obvious one, that complexity of function, is the correlative of complexity of structure.

58. It is a generalization almost equally obvious with the last, that functions, like structures, arise by progressive differentiations. Just as an organ is first an indefinite rudiment, having nothing but some most general characteristic in common with the form it is ultimately to take; so a function begins as a kind of action that is like the kind of action it will eventually become, only in a very vague way. And in functional development, as in structural development, the leading trait thus early manifested, is followed successively by traits of less and less importance. This holds equally throughout the ascending grades of

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Sumber: Collins, F. Howard. 1889:85. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016). ..

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Waste and Repair

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IV. WASTE AND REPAIR.

62. Passing over Waste and Repair in the vegetal kingdom as insignificant; we find in the animal kingdom that Waste is inconsiderable in creatures that produce but little of the insensible and sensible motion we call heat and muscular movement, as in the *Actiniæ:* and that it becomes conspicuous in those that produce much, as in the *Mammalia.* In the same creature there is most waste where most motion is generated. Though Waste and Repair vary in their relative rates, both are constantly going on. During activity, the reintegration falls in arrear of the disintegration; until, as a consequence, functional languor, ending in quiescence, permits the reintegration to exceed the disintegration, and restore the parts to their integrity. With Waste and Repair, as wherever there are antagonistic actions, there are rhythmical divergences on opposite sides of the medium state—changes which equilibrate each other by their alternate excesses. (*First Principles,* § § 85, 173.) Function carried to excess, may produce waste so great, that repair cannot make up for it during the ordinary periods of rest; and there may result permanent incapacities. The repair of, or power of reproducing, injured or lost parts, is greatest where the organization is lowest, and almost disappears where it is highest: as is seen in the *Hydra,* any portion of which can produce the rest; while in mammals and birds, wounds only are often but imperfectly healed.

Sumber: Collins, F. Howard. 1889:87. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Adaptation

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V. ADAPTATION.

67. Organs that have arrived at their full size, possess a certain modifiability; so that while the organism as a whole, retains pretty nearly the same bulk, the proportions of its parts may be considerably varied. Their variations, here treated under the title Adaptation, depend on specialities of individual action. We have just seen that the actions of organisms entail reactions on them; and that specialities of action entail specialities of reaction. Here it remains to be pointed out, that the special actions and reactions do not end with temporary changes, but work permanent changes. If, in an adult animal, the waste and repair in all parts were exactly balanced, it is clear that there would occur no change in the relative sizes of organs. But there is no such exact balance. If the excess of function, and consequent excess of waste, is moderate, it is not simply compensated by repair, but more than compensated—there is a certain increase of bulk. The growth of muscles exercised to an unusual degree, is a matter of common observation. There is the equally general truth, that beyond a limit, usually soon reached, very little, if any, further modification can be produced. After a time, no training makes the athlete any stronger. It has also to be noted that the limited increase of size produced in any organ, is not maintained unless the increase of function is permanent. Legs strengthened by a pedestrian tour, become weak again after a prolonged return to sedentary life. It is observable, too, that the rapidity and completeness with which an artificial power is lost, is proportionate to the shortness of the cultivation which evoked it.

Sumber: Collins, F. Howard. 1889:89. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Individuality

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VI. INDIVIDUALITY.

72. What is an individual? It is, indeed, usual to speak of a tree with its many branches and shoots, as singular; but there are strong reasons for considering it as plural. Are the young polypes, furnished with separate mouths and tentacles, but having a common alimentary canal, distinct individuals or not? On the hypothesis of Evolution, perplexities of this nature are just such as might be anticipated. If Life in general, commenced with minute and simple forms; and if the transitions from these primordial units to organisms made up of groups of such units, took place by degrees; it is clear that individualities of the first and simplest order, would merge gradually in those of a larger and more complex order, and these again in others of an order having still greater bulk and organization; and that hence it would be impossible to say where the lower individualities ceased, and the higher individualities commenced.

73. Shall the whole product of a single fertilized germ, whether concrete or discrete, be regarded as a single individual? If so, it is to apply the term inconveniently to separate living bodies. While, to apply it to fully-developed organisms reproducing their kind after the ordinary sexual method, is to commit ourselves to the anomalous position of denying to many orders of animals the possession of any individuals.

Sumber: Collins, F. Howard. 1889: 91. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Genesis

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VII. GENESIS.

75. The title Genesis, being less specialized than either generation or reproduction, is here chosen to express the multiplication of individuals. Genesis may be sub-divided into two fundamentally distinct processes: One, called *Homogenesis,* or *Gamogenesis,* in which the successive generations are alike, and the genesis always sexual; the other, *Heterogenesis,* in which the successive generations are unlike, and the genesis asexual with the sexual only occasionally recurring. In every species which multiplies by *homogenesis,* each generation and every succeeding generation consists of males and females; and the fertilized germ gives rise to but one individual. Its prominent divisions are the *Oviparous,* as in birds; the *Viviparous,* as in mammals; and the intermediate *Ovo-viviparous,* as in scorpions. In *Heterogenesis,* asexual genesis, or *agamogenesis,* is interrupted more or less frequently by *gamogenesis;* from a generation of perfect males and females arise individuals that are neither males nor females, but that produce the next generation from buds, many individuals thus originating from a single fertilized germ. It may be sub-divided into *Parthenogenesis,* where, along with gamogenesis, is a form of agamogenesis exactly like it, save in the absence of fecundation—reproduction is carried on by virgin mothers. *Metagenesis,* where in agamogenesis the new individuals bud out, not from any specialized reproductive organs, but from unspecialized parts of the parent. If the individuals thus produced, grow from the outsides of the parents—the metagenesis is external; if from the insides, the metagenesis is internal. And *Pseudo-parthenogenesis,* intermediate between the two, being agamogenesis carried on in a reproductive organ, a process familiarly exemplified in the *Aphides.* Hence, the following is given as an approximation to the insensible graduations of Evolution:—

Sumber: Collins, F. Howard. 1889: 92. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Heredity

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VIII. HEREDITY.

80. Understood in its entirety, the law of hereditary transmission is that each plant or animal produces others of like kind with itself: the likeness of kind consisting, not so much in the repetition of individual traits, as in the assumption of the same general structure. That every unfolding organism eventually takes the form of the class, order, genus, and species from which it sprang; is a fact which, by force of repetition, has acquired in our minds almost the aspect of a necessity. The illustrations of Heredity are divisible into two classes. In the one class come cases where congenital peculiarities, not traceable to any obvious causes, are bequeathed to descendants. In the other class come cases where the peculiarities thus bequeathed are not congenital, but have resulted from changes of functions during the lives of the individuals bequeathing them. The former class will first be considered.

81. When there are thousands of men whose profit or loss depends on the truth of the inferences they draw from simple and perpetually-repeated observations; and when it is found that the inference arrived at, and handed down from generation to generation of these deeply-interested observers, has become an unshakeable conviction; we may accept it without hesitation. In breeders of animals there is such a class, led by such experiences, and entertaining such a conviction—the conviction that minor peculiarities of organization are inherited as well as major peculiarities. Hence the immense prices given for successful racers, and the careful record of pedigrees. The inheritance of such diseases as gout, consumption, and insanity, is universally admitted.

Sumber: Collins, F. Howard. 1889: 95-96. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Variations

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IX. VARIATION.

85. Equally conspicuous with the truth that every organism bears a general likeness to its parents, is the truth that no organism is exactly like either parent. No two plants are indistinguishable; and no two animals are without differences. Variation is coextensive with Heredity. The transmission of variations is itself variable; it varies both in the direction of decrease and of increase. An individual trait of one parent, may be so counteracted by the influence of the other parent, that it may not appear in the offspring; or not being so counteracted, the offspring may possess it, perhaps in an equal degree or perhaps in a less degree; or the offspring may exhibit the trait in even a still higher degree.

86. Induction points to three causes of variation, all in action together. There is heterogeneity among progenitors, which, did it act uniformly and alone in generating new deviations, would impress such new deviations to the same extent on all offspring of the same parents; which it does not. There is functional variation in the parents, which, acting either alone or in combination with the preceding cause, would entail like variations on all young ones simultaneously produced; which it does not. And there is consequently some third cause of variation, yet to be found, which acts along with the structural and functional variations of ancestors and parents.

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Sumber: Collins, F. Howard. 1889: 98. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Classification

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XI. CLASSIFICATION.

98. Classification may be employed to facilitate identification, as when books are arranged in the alphabetical succession of the author's names: or, to organize our knowledge, as when they are arranged according to their subject-matter—Mathematics, History, &c. The first classifications are groupings of objects that resemble each other in easily-perceived attributes. While the classifications eventually arrived at, serve most completely to identify the things, and also to express the greatest amount of knowledge concerning the things—enable us to predicate the greatest number of facts concerning each thing; and by so doing prove that they express the most precise correspondence between our conceptions and the realities.

99. Biological classifications illustrate well the phases through which classifications in general pass. There is at first, a guidance by conspicuous and simple characters, and a tendency towards arrangement in linear order; then,

more regard to combinations of characters which are essential but often inconspicuous; and an arrangement in divergent groups and re-divergent sub-groups. In botanical classification, at the present time, linear arrangement has disappeared: there is a breaking up into groups and sub-groups and sub-sub-groups, which do not admit of being placed in serial order, but only in divergent and re-divergent order. Each successively smaller class thus has an increased number of coexisting attributes.

100. Like the modern classification of plants, the classification of animals that has now been arrived at, is one in which the linear order is completely broken up. Taking the classification of Prof. Huxley, we find that the relations among the several great groups of the animal kingdom—the *Protozoa*, *Cœlenterata*, *Annulosa*, *Mollusca*, and *Vertebrata*—are represented diagrammatically by placing these groups at the end of five radii of varied lengths, diverging at different angles from a centre. Each group resolves itself into a cluster of clusters, arranged in like manner, radially, and at diverse angles and distances from each sub-centre, to represent the successively subordinate divisions of classes, orders, &c. By the distances of the great divisions from the general centre, are rudely symbolized their respective degrees of divergence from the form of simple, undifferentiated, organic matter; which may be regarded as their common source. Within each group, the remoteness from the local centre represents, in a rough way, the degree of departure from the general plan of the group

Sumber: Collins, F. Howard. 1889: 102-103. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Distribution

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XII. DISTRIBUTION.

104. The distribution of organisms in Space may be considered in two ways—their restriction to environments appropriate to them; and their absence from localities for which they are well fitted.

105. Facts which illustrate the limiting influence of surrounding conditions, are abundant, and familiar to all readers. Fully to understand the actions of the inorganic and organic agencies, that set bounds to the spaces which organisms of each species inhabit, they must be contemplated as working not separately, but in concert. We have to conceive the forces by which the limit is maintained, as

THE INDUCTIONS OF BIOLOGY. 105

including all physical and meteorologic influences, united with the influences, direct or more or less remote, of nearly all coexisting organisms. One general truth calls for special notice—the truth that organisms are ever intruding on each other's spheres of existence. That tendency which the human races display, to overrun and occupy each other's lands, is a tendency exhibited by all classes of organisms in all varieties of ways. The bounds to the sphere of existence of each species, must be regarded as determined by the balancing of two antagonist sets of forces. The tendency which every species has to intrude on other areas, on other modes of life, and other media, is restrained by the direct and indirect resistance of conditions, organic and inorganic. And these expansive and repressive energies, varying continually in their respective intensities, rhythmically equilibrate each other—maintain a limit that perpetually oscillates from side to side of a certain mean.

Sumber: Collins, F. Howard. 1889: 104-105. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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The Origin of Anthropology

Antropologi merupakan ilmu tentang manusia sebagai unit yang terdapat pada klasifikasi hewan. Pada Antropologi, tidak terpelajari kajian tentang *man as a racial unit* maupun *distribution of the races.* Kajian tentang manusia sebagai *racial unit* merupakan bidang studi *ethnology,* sedangkan distribusi ras yang terbentuk oleh agregasi merupakan kajian *ethnography.* Anatomi manusia, baik struktur maupun fungsinya juga tidak terpelajari pada Antropologi, karena kajian ini telah dinyatakan sebagai *Physiology.* Demikian pula kajian tentang manusia yang spesifik berupa penelitian beroperasinya otak manusia telah dinyatakan sebagai *Psychology* dan kajian tentang bahasa yang digunakan ras manusia tertentu pada berbagai bangsa merupakan bidang kajian *Phylology.* Pada Antropologi juga tidak terpelajari ihwal keyakinan manusia (*beliefs*), kebiasaan, kebudayaan dan institusi sosial sepanjang sejarah, karena kajian ini merupakan konsentrasi Sosiologi. Pada buku Britannica, The Encyclopaedia (1910: 108) berjudul '*The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II'* (Chicago: Printed by R.R. Donnelley & Sons Company) tercetak '*Anthropology, the science which, in its strictest sense, has as its object the study of man as a unit in the animal kingdom*'.

ANTHROPOLOGY (Gr. ἄνθρωπος man, and λόγος, theory or science), the science which, in its strictest sense, has as its object the study of man as a unit in the animal kingdom. It is distinguished from ethnology, which is devoted to the study of man as a *racial* unit, and from ethnography, which deals with the *distribution* of the races formed by the aggregation of such units. To anthropology, however, in its more general sense as the natural history of man, ethnology and ethnography may both be considered to belong, being related as parts to a whole.

Various other sciences, in conformity with the above definition, must be regarded as subsidiary to anthropology, which yet hold their own independent places in the field of knowledge. Thus anatomy and physiology display the structure and functions of the human body, while psychology investigates the operations of the human mind. Philology deals with the general principles of language, as well as with the relations between the languages of particular races and nations. Ethics or moral science treats of man's duty or rules of conduct toward his fellow-men. Sociology and the science of culture are concerned with the origin and development of arts and sciences, opinions, beliefs, customs, laws and institutions generally among mankind within historic time; while beyond the historical limit the study is continued by inferences from relics of early ages and remote districts, to interpret which is the task of pre-historic archaeology and geology.

Sumber: Britannica, the Encyclopaedia. 1910: 108. The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II. Chicago: Printed by R.R. Donnelley & Sons Company. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran tulisan Dr. J. C. Prichard (1843), '*The Founder of Modern Anthropology*' berjudul *Natural History of Man,* Antropologi konsen pada kajian tentang '*Man's Place in Nature*'. Pada buku Britannica, The Encyclopaedia (1910: 108 & 109) berjudul '*The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II'* (Chicago: Printed by R.R. Donnelley & Sons Company) tercetak:

I. *Man's Place in Nature.*—In 1843 Dr J. C. Prichard, who perhaps of all others merits the title of founder of modern anthropology, wrote in his *Natural History of Man*:—

"The organized world presents no contrasts and resemblances more remarkable than those which we discover on comparing mankind with the inferior tribes. That creatures should exist so nearly approaching to each other in all the particulars of their physical structure, and yet differing so immeasurably in their endowments and capabilities, would be a fact hard to believe, if it were not manifest to our observation. The differences are everywhere striking: the resemblances are less obvious in the fulness of their extent, and they are never contemplated without wonder by those who, in the study of anatomy and physiology, are first made aware how near is man in his physical constitution to the brutes. In all the principles of his internal structure, in the composition and functions of his parts, man is but an animal. The lord of the earth, who contemplates the eternal order of the universe, and aspires to communion with its invisible Maker, is a being composed of the same materials, and framed on the same principles, as the creatures which he has tamed to be the servile instruments of his will, or slays for his daily food. The points of resemblance are innumerable; they extend to the most recondite arrangements of that mechanism which maintains instrumentally the physical life of the body, which brings forward its early development and admits, after a given period, its decay, and by means of which is prepared a succession of similar beings destined to perpetuate the race."

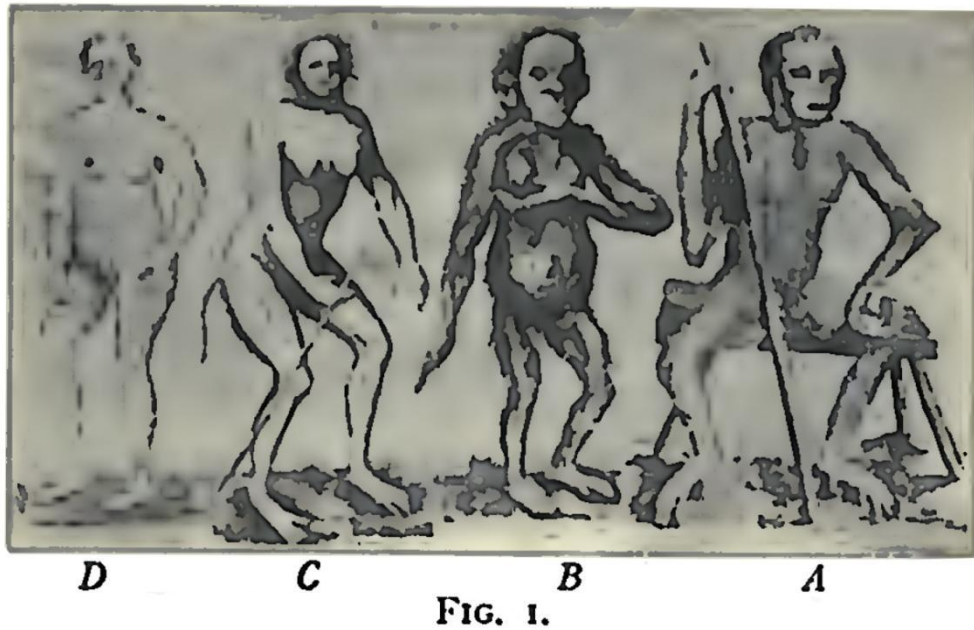
Sumber: Britannica, the Encyclopaedia. 1910: 108 & 109. The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II. Chicago: Printed by R.R. Donnelley & Sons Company. Gambar disajikan oleh Levri Ardiansyah (2017).

Kesamaan struktur tubuh manusia terhadap hewan (*man's structural similarity with anthromorphous species*) telah lebih dahulu dipelajari oleh Linnaeus (1735) dengan tulisannya berjudul '*Systema Naturae*' yang mengelompokan manusia bersama hewan, sebagai '*the highest order of Mammalia*' dan memberi nama *Primates.* Pada 1764, Linnaeus mempublikasikan tulisan berjudul '*The Amoenitates Academicae*' yang tercetak didalamnya gambar berupa 4 *figures*, yakni: (1) *a recognizable Orang-Utan, sitting and holding a staff;* (2) *a chimpanszee, absurdly humanized as to head, hands, and feet;* (3) *a hairy woman, with a tail a foot long;* dan (4) *another woman, more completely coated with hair.* Pada buku Britannica, The Encyclopaedia (1910: 109) berjudul '*The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and*

General Information. Eleventh Edition. Volume II' (Chicago: Printed by R.R. Donnelley & Sons Company) tercetak:

The acknowledgment of man's structural similarity with the anthropomorphous species nearest approaching him, viz.: the higher or anthropoid apes, had long before Prichard's day been made by Linnaeus, who in his *Systema Naturae* (1735) grouped them together as the highest order of Mammalia, to which he gave the name of Primates. The *Amoenitates Academicae* (vol. vi., Leiden, 1764), published under the auspices of Linnaeus, contains a remarkable picture which illustrates a discourse by his disciple Hoppius, and is here reproduced (see Plate, fig. 1). In this picture, which shows the crudeness of the zoological notions current in the 18th century as to both men and apes, there are set in a row four figures: (*a*) a recognizable orang-utan, sitting and holding a staff; (*b*) a chimpanzee, absurdly humanized as to head, hands, and feet; (*c*) a hairy woman, with a tail a foot long; (*d*) another woman, more completely coated with hair. The great Swedish naturalist was possibly justified in treating the two latter creatures as quasi-human, for they seem to be grotesque exaggerations of such tailed and hairy human beings as really, though rarely, occur, and are apt to be exhibited as monstrosities (see Bastian and Hartmann, *Zeitschrift für Ethnologie*, Index, "Geschwänzte Menschen"; Gould and Pile, *Anomalies and Curiosities of Medicine*, 1897). To Linnaeus, however, they represented normal anthropomorpha or man-like creatures, vouched for by visitors to remote parts of the world. This opinion of the Swedish

Sumber: Britannica, the Encyclopaedia. 1910: 109. The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II. Chicago: Printed by R.R. Donnelley & Sons Company. Gambar disajikan oleh Levri Ardiansyah (2017).

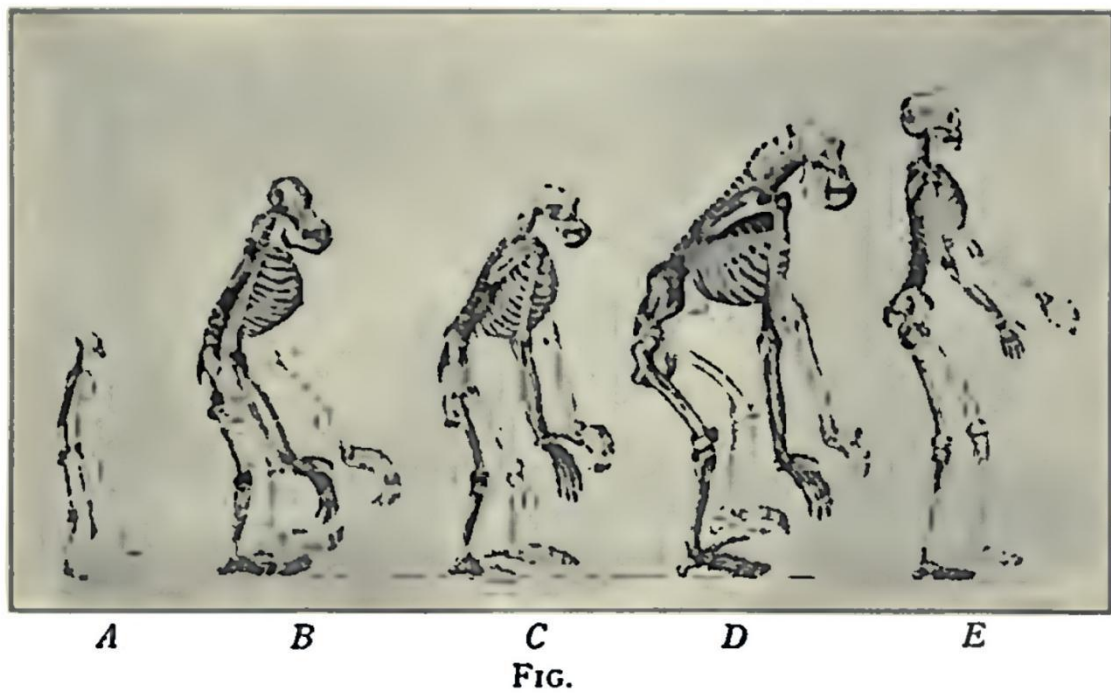
A row four figures yang dimaksud tercetak di halaman 118 pada buku Britannica, The Encyclopaedia (1910: 118) berjudul '*The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II'* (Chicago: Printed by R.R. Donnelley & Sons Company) yang saya kutip seperti ini:

Sumber: Britannica, the Encyclopaedia. 1910: 118. The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II. Chicago: Printed by R.R. Donnelley & Sons Company. Gambar disajikan oleh Levri Ardiansyah (2017).

Gambaran Linnaeus (1764) ini tentu terpengaruh oleh teori yang dikemukakan Lamarck tentang '*The development of new species by habit and circumstance*' yang kemudian dibuktikan oleh Wallace dan Darwin hingga terumuskan '*The doctrine of the hereditary transmission of of acquired characters, the survival of the fittest and natural selection*' (Britannica, The Encyclopaedia, 1910: 109). Skema zologikal yang dibuat oleh Linnaeus (1764) kemudian dikembangkan oleh Huxley yang tergambarkan sebagai '*Huxley's diagram of simian and human skeletons*' berupa (a) *gibbon;* (b) *orang;* (c) *chimpanzee;* (d) *gorilla;* dan (e) *man.* Pada buku Britannica, The Encyclopaedia (1910: 109) berjudul '*The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II'* (Chicago: Printed by R.R. Donnelley & Sons Company) tercetak:

patible. In the 19th century, however, Lamarck's theory of the development of new species by habit and circumstance led through Wallace and Darwin to the doctrines of the hereditary transmission of acquired characters, the survival of the fittest, and natural selection. Thenceforward it was impossible to exclude a theory of descent of man from ancestral beings whom zoological similarity connects also, though by lines of descent not at all clearly defined, with ancestors of the anthropomorphic apes. In one form or another such a theory of human descent has in our time become part of an accepted framework of zoology, if not as a demonstrable truth, at any rate as a working hypothesis which has no effective rival.

The new development from Linnaeus's zoological scheme which has thus ensued appears in Huxley's diagram of simian and human skeletons (fig. 2, (*a*) gibbon; (*b*) orang; (*c*) chimpanzee; (*d*) gorilla; (*e*) man). Evidently suggested by the Linnean picture, this is brought up to the modern level of zoology, and continued on to man, forming an introduction to his zoological history hardly to be surpassed. Some of the main

Sumber: Britannica, the Encyclopaedia. 1910: 109. The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II. Chicago: Printed by R.R. Donnelley & Sons Company. Gambar disajikan oleh Levri Ardiansyah (2017).

Ilustrasi berupa '*Huxley's diagram of simian and human skeletons*' tercetak pada buku Britannica, The Encyclopaedia (1910: 118) berjudul '*The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II'* (Chicago: Printed by R.R. Donnelley & Sons Company) seperti ini:

Sumber: Britannica, the Encyclopaedia. 1910: 118. The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II. Chicago: Printed by R.R. Donnelley & Sons Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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The Origin of Man

Pada buku Britannica, The Encyclopaedia (1910: 112) berjudul '*The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II'* (Chicago: Printed by R.R. Donnelley & Sons Company) tercetak '*Origin of Man. Opinion as to the genesis of man is divided between the theories of creation and evolution*' yang kutipannya terbaca berupa gambar ini:

II. *Origin of Man.*—Opinion as to the genesis of man is divided between the theories of creation and evolution. In both schools, the ancient doctrine of the contemporaneous appearance on earth of all species of animals having been abandoned under the positive evidence of geology, it is admitted that the animal kingdom, past and present, includes a vast series of successive forms, whose appearances and disappearances have taken place at intervals during an immense lapse of ages. The line of inquiry has thus been directed to ascertaining what formative relation subsists among these species and genera, the last link of the argument reaching to the relation between man and the lower creatures preceding him in time. On both the theories here concerned it would be admitted, in the words of Agassiz (*Principles of Zoology*, pp. 205-206), that " there is a manifest progress in the succession of beings on the surface of the earth. This progress consists in an increasing similarity of the living fauna, and, among the vertebrates especially, in their increasing resemblance to man." Agassiz continues, however, in terms characteristic of the creationist school: " But this connexion is not the consequence of a direct lineage between the faunas of different ages. There is nothing like parental descent connecting them. The fishes of the Palaeozoic age are in no respect the ancestors of the reptiles of the Secondary age, nor does man descend from the mammals which preceded him in the Tertiary age. The link by which they are connected is of a higher and immaterial nature; and their connexion is to be sought in the view of the Creator himself, whose aim in forming the earth, in allowing it to undergo the successive changes which geology has pointed out, and in creating successively all the different types of animals which have passed away, was to introduce man upon the surface of our globe. Man is the end towards which all the animal creation has tended from the first appearance of the first Palaeozoic fishes." The evolutionist, on the contrary (see EVOLUTION), maintains that different successive species of animals are in fact connected by parental descent, having become modified in the course of successive generations. The result of Charles Darwin's application of this theory to man may be given in his own words (*Descent of Man*, part i. ch. 6):—

Sumber: Britannica, the Encyclopaedia. 1910: 112. The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II. Chicago: Printed by R.R. Donnelley & Sons Company. Gambar disajikan oleh Levri Ardiansyah (2017).

Menelusuri *the origin of man* tak terpisah dari *the origin of species*. Pada buku Britannica, The Encyclopaedia (1910: 112) berjudul '*The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II'* (Chicago: Printed by R.R. Donnelley & Sons Company) tercetak:

The problem of the origin of man cannot be properly discussed apart from the full problem of the origin of species. The homologies between man and other animals which both schools try to account for; the explanation of the intervals, with apparent want of intermediate forms, which seem to the creationists so absolute a separation between species; the evidence of useless "rudimentary organs," such as in man the external shell of the ear, and the muscle which enables some individuals to twitch their ears, which rudimentary parts the evolutionists claim to be only explicable as relics of an earlier specific condition,—these, which are the main points of the argument on the origin of man, belong to general biology. The philosophical principles which underlie the two theories stand for the most part in strong contrast, the theory of evolution tending toward the supposition of ordinary causes, such as "natural selection," producing modifications in species, whether by gradual accumula-

Sumber: Britannica, the Encyclopaedia. 1910: 112. The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume II. Chicago: Printed by R.R. Donnelley & Sons Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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The Origin of Species

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Merunut pemikiran tulisan Darwin, Charles (1872: xiii & xiv) berjudul '*The Origin of Species by Means of Natural Selection. Sixth Edition'* (London: John Murray) terbaca bahwa Lamarck merupakan orang pertama yang menuliskan simpulan tentang '*the origin of species*' yang cetakan pertamanya dipublikasi pada 1801 dan 1809 berjudul '*Philosophie Zoologique*' juga pada tahun 1815 berjudul '*Hist Nat. des Animaux sans Vertebres*'.

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The Origin of Politics

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The Origin of Economics
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What is Administration?

Sebagai ilmu, administrasi tentu harus memiliki pertanyaan keilmuan yang dikenal sebagai *is question* berupa pertanyaan '*what is'* yaitu '*what is the fact of administration?*' yang merupakan pertanyaan sesungguhnya dari '*What is administration?*'. Hal ini berarti *is question* adalah pertanyaan tentang fakta sesuatu yang nyata adanya, baik bentuk fisik dan materinya maupun sifat-sifatnya, dapat diamati oleh pancaindera pada hari ini dan besok (*an observation that has been repeatedly confirmed*) serta dapat dicoba hingga menjadi pengalaman yang terbukti (*verifiabiliiy*). Sederhananya, fakta mesti ada benda fisiknya. Inilah tantangan bagi Ilmu Administrasi untuk menunjukan mana fakta berupa benda fisik yang memang merupakan fakta administrasi. Jika yakin ada, maka barulah pertanyaan *is question* ini menjadi perhatian Ilmu Administrasi.

Sebagai pertanyaan keilmuan, *is question* merupakan pertanyaan pertama yang harus ada dan dimiliki oleh suatu disiplin ilmu, karena *is question* menjadi penuntun pembuktian pada adanya fakta suatu bidang ilmu. Bagi Ilmu Administrasi, *is question* ini adalah pertanyaan yang ada setelah terlebih dahulu harus ada fakta Ilmu Administrasi, sehingga *is question* merupakan pertanyaan kedua setelah pertanyaan '*What is the fact of administration*' terjawab. Bagi sebagian ilmuwan administrasi, pertanyaan pertama ini malah menjadi pertanyaan kedua, setelah pertanyaan '*Whether the fact of administration really exist?*'. Bahkan pertanyaan terakhir ini mewakili kenyataan kontemporer bahwa Ilmu Administrasi masih dianggap tidak memiliki fakta ilmiah.

Bagi penulis, fakta Ilmu Administrasi adalah jelas adanya, yaitu jelas posisi lokasinya, elemen-elemen fisik maupun materi yang menyusunnya serta hasil nyatanya yang padu.

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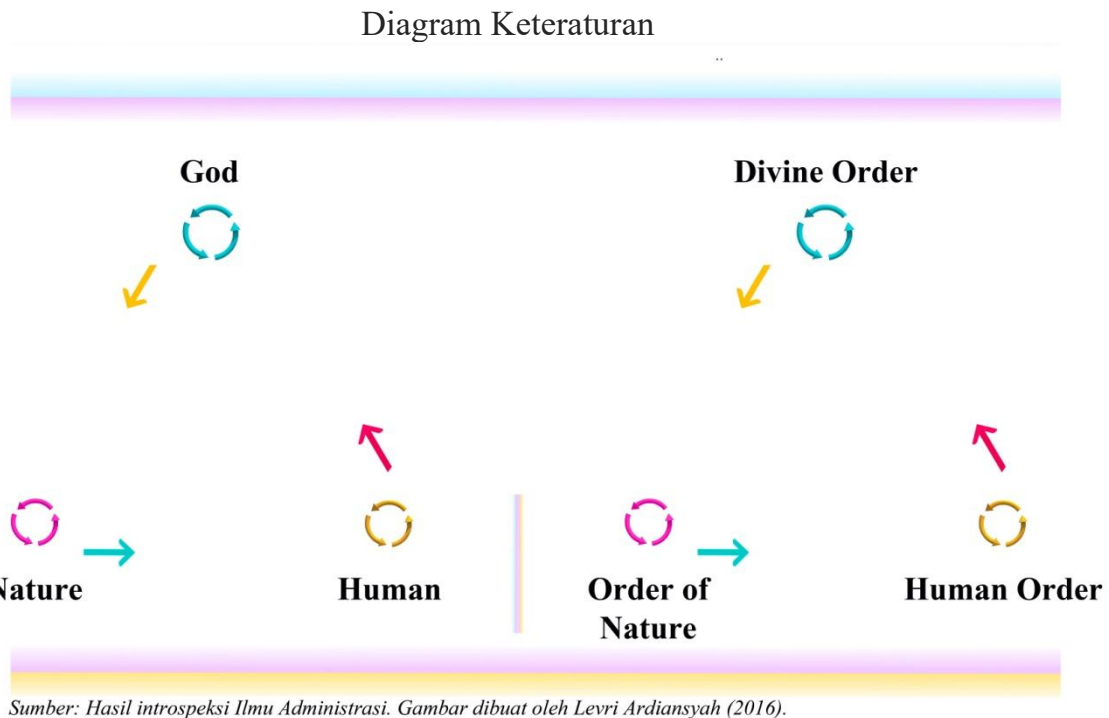
Diagram Keteraturan

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Relations are of two order

47. It has been pointed out that *relation* is the universal form of thought (chap. I). Now relations are of two orders—relations of sequence, in which the terms are not reversible, in the abstract, Time; and relations of coexistence, in which they are reversible, in the abstract, Space. Our consciousness of the latter arises from accumulated experiences of *force,* partly our own but chiefly ancestral. All we can assert is, that Space is a relative reality; that our consciousness of this unchanging relative reality implies an absolute reality equally unchanging. And that the relative reality may be unhesitatingly accepted in thought as a valid basis for our reasonings; which, when rightly carried on, will bring us to truths that have a like relative reality—the only truths which concern us or can possibly be known to us. A parallel argument leads to parallel conclusions concerning Time; relative and absolute.

Sumber: Collins, F. Howard. 1889:21. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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The oldest interpretations of nature, Lawrence J. Henderson (*1917*), *assistant professor of biological chemistry* di Harvard University dalam bukunya berjudul *'The Order of Nature: An Essay'*

MANY of the characteristics of inorganic nature, like the stability of the solar system and the enduring movements of the waters of the earth, are the very condition of existence for life as we know it and the source of diversity in organic evolution. This is perhaps one of the oldest interpretations of nature. But since Darwin's time the fitness of the environment has only occasionally aroused passing comment without ever entering the main current of scientific thought.

Sumber: Henderson, Lawrence J. 1917:1. The Order of Nature: An Essay. Cambridge: Harvard University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

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In the science of life, however, a more subtle consideration arises, and this leads Aristotle to the concept of organization. " As every instrument and every bodily member subserves some partial end, that is to say, some special action, so the whole body must be destined to minister to some plenary sphere of action." [2]

" And the animal organism must be conceived after the similitude of a well-governed commonwealth. When order is once established in it there is no more need of a separate monarch to preside over each several task. The individuals each play their assigned part as it is ordered, and one thing follows another in its accustomed order.

Sumber: Henderson, Lawrence J. 1917:16. The Order of Nature: An Essay. Cambridge: Harvard University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

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Dua keteraturan pada peristiwa diferensiasi sel sex jantan dan betina (*the differentiation of male and female sex cells*) yang ditunjukan oleh Ancel (1903) dalam buku karya Hegner (1914:199) berjudul ‘*The Germ-Cell Cycle of Animals*’ seperti ini:
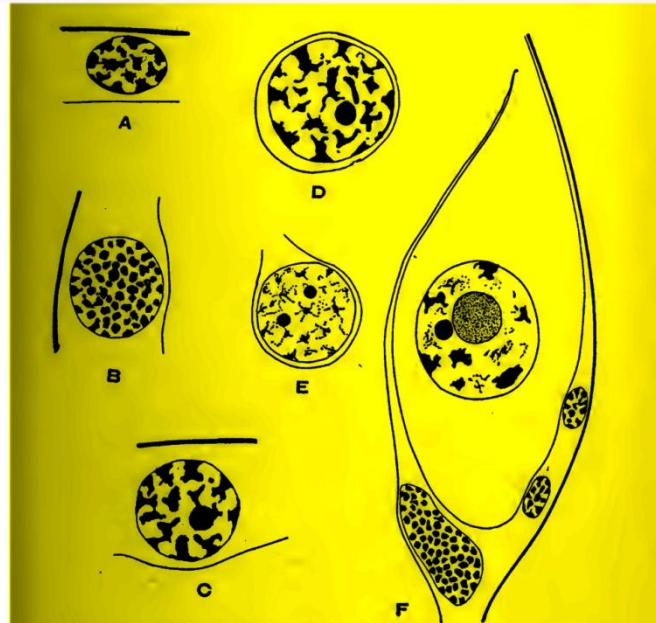
FIG. 58. — ***Helix arbustorum*. Stages in the differentiation of male and female sex cells. *A*. Nucleus of germinal epithelium. *B*. Nucleus of nurse cell. *C*. Nucleus of indifferent sex cell. *D*. Spermatogonium of first order. *E*. Spermatogonium of second order. *F*. Growing oöcyte. (*From Buresch, 1911*.)**

Sumber: Hegner, Robert W. 1914:199. The Germ-Cell Cycle in Animals. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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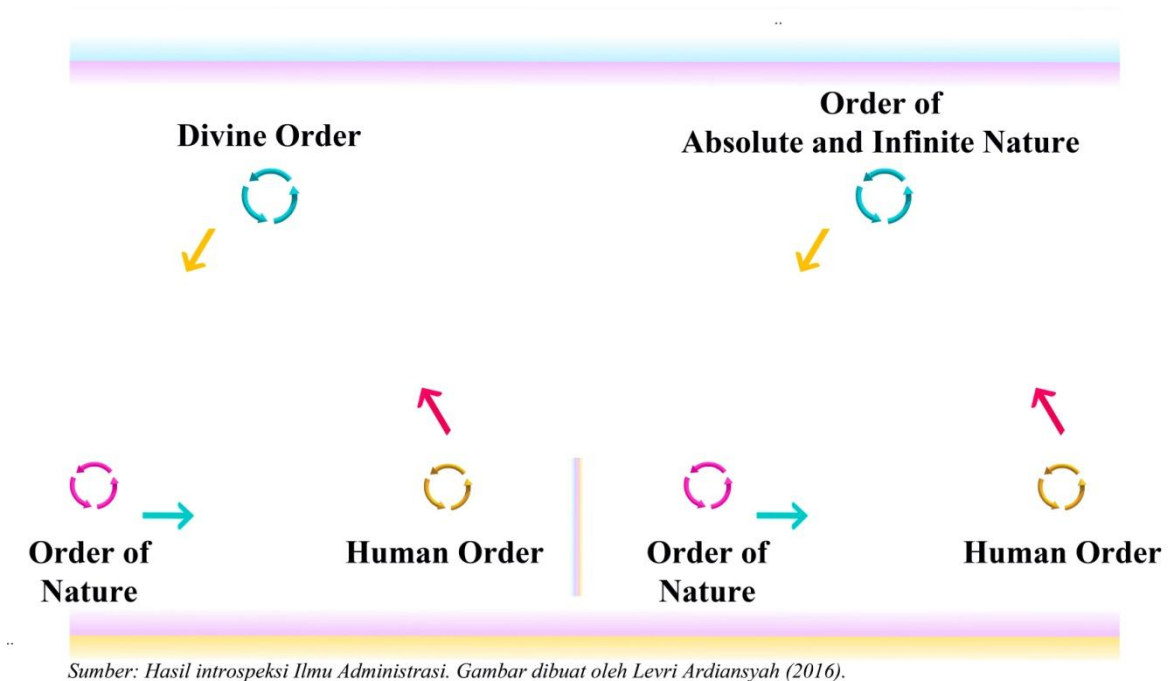
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Jika Tuhan dipandang sebagai *nature,* maka *divine order* merupakan *order of absolute and infinite nature* yang bersifat metafisika. Whitehead (1920:5) menuliskan istilah '*The Values of Nature*' untuk konteks metafisika yaitu *values of nature* sebagai kunci untuk sintesis eksistensi yang bersifat *metaphysical.*

> The values of nature are perhaps the key to the metaphysical synthesis of existence. But such a synthesis is exactly what I am not attempting. I am concerned exclusively with the generalisations of widest scope which can be effected respecting that which is known to us as the direct deliverance of sense-awareness.
>
> I have said that nature is disclosed in sense-perception as a complex of entities. It is worth considering what we mean by an entity in this connexion. 'Entity' is simply the Latin equivalent for 'thing' unless some arbitrary distinction is drawn between the words for technical purposes. All thought has to be about things.

Sumber: Whitehead, A.N. 1920:5. The Concept of Nature. Cambridge: Cambridge University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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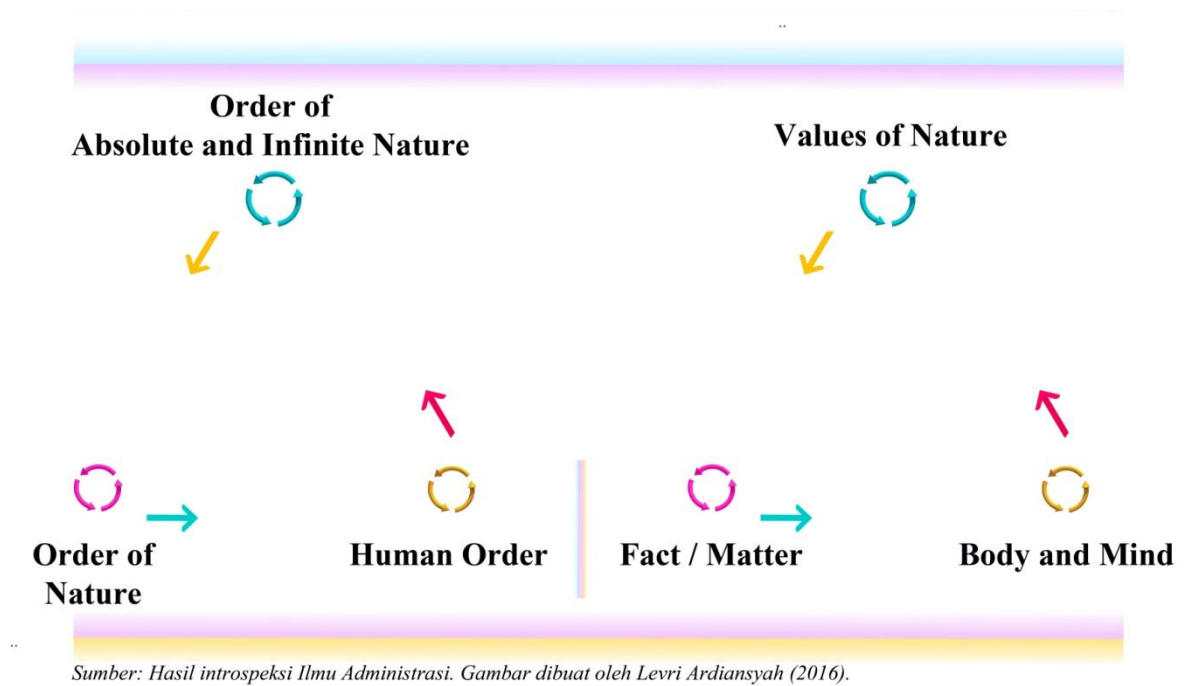
Merunut tulisan Whitehead (1920:13), *nature* terdiri dari *fact, factora and entities.*

Thus there are three components in our knowledge of nature, namely, fact, factors, and entities. Fact is the undifferentiated terminus of sense-awareness; factors are termini of sense-awareness, differentiated as elements of fact; entities are factors in their function as the termini of thought. The entities thus spoken of are natural entities. Thought is wider than nature, so that there are entities for thought which are not natural entities.

Sumber: Whitehead, A.N. 1920:13. The Concept of Nature. Cambridge: Cambridge University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

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Merunut tulisan Whitehead (1920:15), *the ultimate fact* adalah sebuah peristiwa.

Thus the ultimate fact for sense-awareness is an event. This whole event is discriminated by us into partial events. We are aware of an event which is our bodily life, of an event which is the course of nature within this room, and of a vaguely perceived aggregate of other partial events. This is the discrimination in sense-awareness of fact into parts.

Sumber: Whitehead, A.N. 1920:15. The Concept of Nature. Cambridge: Cambridge University Press. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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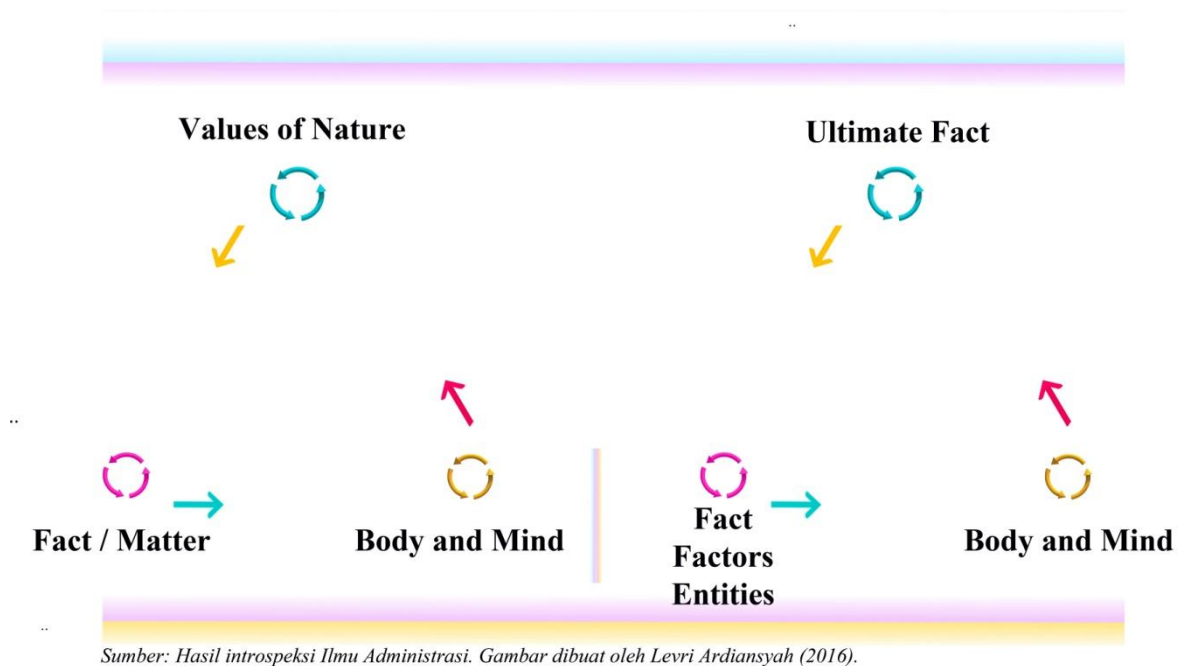
The Basal Principal of Administration

Prinsip dasar adanya administrasi adalah:

1. *Similarity,* yaitu adanya kesamaan visi, misi dan tujuan
2. *Contiguity,* yaitu adanya kecocokan pengalaman saat berinteraksi
3. *Contrast,* yaitu adanya perbedaan penampilan yang melekat menjadi terpadu (*Bhinneka Tunggal Ika*)
4. *Continuity,* yaitu kesinambungan tindakan secara bertahap sehingga tampak sambung menyambung menjadi padu;
5. *Solid,* yaitu hasil aktivitas administrasi berupa kepaduan.

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Hingga hari ini, kelima prinsip dasar administrasi dipahami sebagian besar ahli Ilmu Administrasi sebagai kerjasama (*co-operation*). Melalui buku ini, saya mencoba menolak pemahaman dan pengertian ini. Dalam pikiran saya, *the basal principal of administration* adalah *association* yang terdapat pada *laws of association.*

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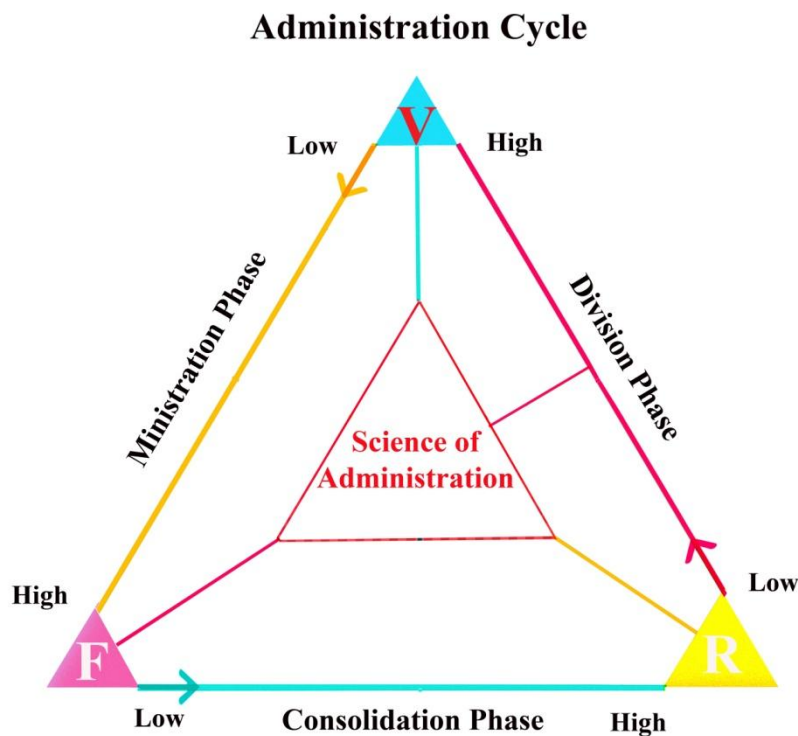
Sifat Administrasi

Sifat-sifat administrasi terdiri dari:

1. Melayani
2. Mengendalikan
3. Mengatur kombinasi
4. *Solid* yang dicapai melalui proses konsolidasi
5. Menjadi 2 divisi atau lebih

Siklus Administrasi

Sebagai fakta yang berulang, administrasi merupakan siklus yang terdiri dari 3 fase yaitu (1) *ministration phase;* (2) *consolidation phase* dan (3) *division phase.* Ketiga fase ini diawali keadaan rendah pada *ministration phase* yang juga merupakan fase istirahat (*the boby at rest*) menuju keadaan tinggi. Begitu juga pada *consolidation phase* dan *division phase* yang juga dimulai dari waktu dengan keadaan rendah menuju waktu dengan keadaan tinggi. Dengan pola siklus rendah – tinggi – rendah ini, terdapat transisi diantara setiap fase yang berlangsung dari keadaan tinggi menuju rendah sehingga dengan keadaan rendah ini fase selanjutnya dapat mengalir. Transisi ini merupakan transisi unidireksional sehingga tidak terjadi alir balik dan karena ini terdapat progres hingga membentuk siklus.

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Fase administrasi ini merupakan fase waktu, sehingga didalamnya terdapat energi (*energy*), kerja (*work*), fungsi (*functions*), pergerakan (*motion*), perpindahan (*displacement*), proses dan alir (*flux*) yang bergerak maju mundur sebagai garis (*line*). Oleh karena ini, pada Diagram Siklus Administrasi, setiap fase digambarkan sebagai garis dengan keadaan rendah sebagai *ray.*

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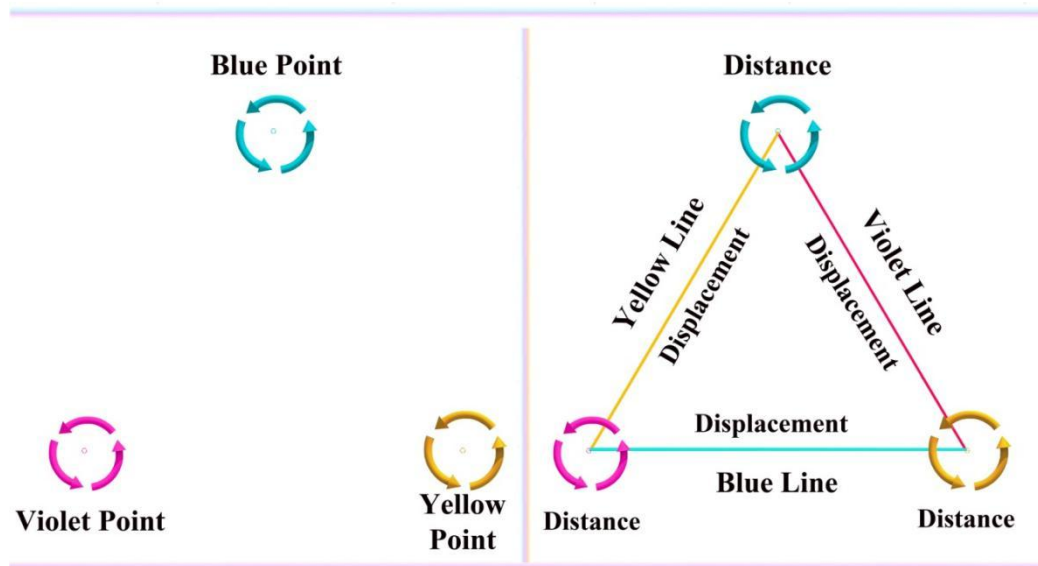
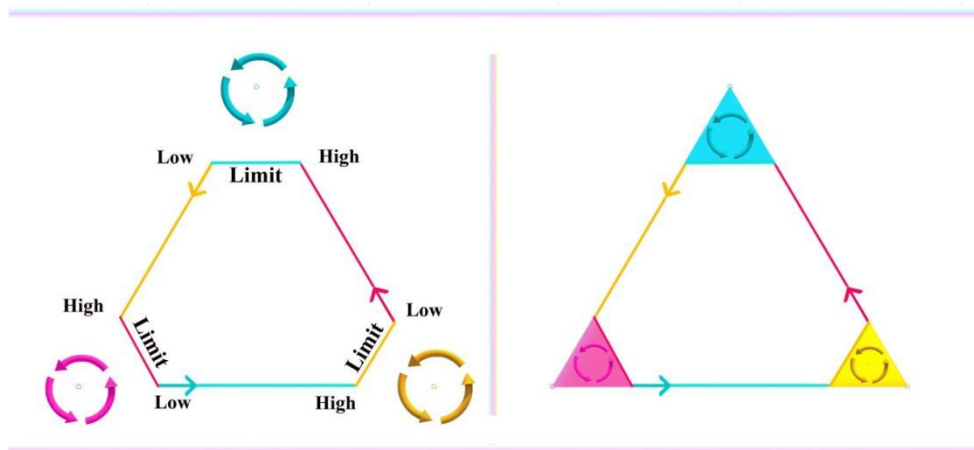
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

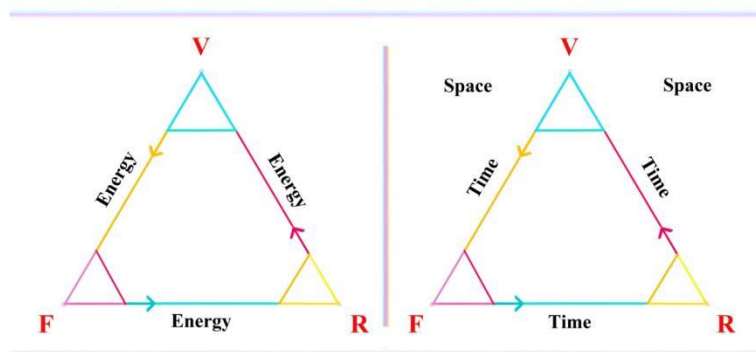
..

VFR merupakan *point* yang digambarkan dengan warna biru untuk V (*blue point* atau *blue vertex*), warna ungu untuk F (*violet point*) dan warna kuning untuk R (*yellow point atau yellow angle*). Satu *point* dengan tanda arah dikenal sebagai *Ray,* contohnya *Ray U* Dua *point* tanpa arah dikenal sebagai *line segment,* contohnya *line segment JB* Dua *point* dengan dua tanda arah dikenal sebagai *line,* contohnya *line KP* dan *line BV*. Pada *line* yang terdapat 2 atau lebih *point* dikenal sebagai *collinear,* contohnya *collinear BV* yang terdiri dari 9 *points* yaitu *time, energy, flux, work, functions, motion, operations, displacement and vector*

Warna biru muda pada poin V mengekspresikan nilai (*value*), sedangkan warna ungu yang terdapat pada poin F mengekspresikan fakta (*fact*) dan warna kuning yang terdapat pada poin R mengekspresikan hasil (*result*). Poin ini merupakan suatu skalar yang positif, tidak mengenal negatif, dan bergerak melingkar sehingga poin dapat dipandang sebagai kondisi ideal atau kondisi yang mengandung prinsip-prinsip mendasar yang berlaku kian umum. Garis merupakan garis kerja yang menunjukan adanya energi kerja sekaligus sebagai fungsi kerja. Warna kuning pada garis mengekspresikan fungsi kerja dari kondisi nilai menuju fakta, warna biru muda pada garis mengekspresikan fungsi kerja dari fakta menuju hasil, dan warna ungu pada garis mengekspresikan fungsi kerja dari hasil menuju kembali kepada nilai. Pada garis terdapat tanda

panah yang menunjukan arah pergerakan yang maju mundur (*oscilating*) dari kondisi rendah menuju kondisi tinggi atau dari kondisi tinggi menuju kondisi rendah. Pada poin juga terdapat tanda panah yang melingkar.

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Warna poin ditentukan berdasarkan aturan pewarnaan pada siklus sel yang terdapat pada buku karya Hughes (1952:49) dalam bukunya berjudul '*The Mitotic Cycle: The Cytoplasm and Nucleus during Interphase and Mitosis*' sedangkan warna garis ditentukan berdasarkan aturan pembuatan Diagram Ternary merunut tulisan Fichter (2000) dalam tulisannya berjudul '*Reading A Ternary Diagram*' bahwa garis yang menuju poin biru muda adalah garis biru muda, garis yang menuju poin ungu adalah garis berwarna ungu dan garis yang menuju poin kuning adalah garis yang berwarna kuning, sehingga garis kuning yang batas terendahnya ada pada poin biru tidak berwarna sama dengan poin. Begitu juga garis biru muda dan ungu. Hal ini menunjukan adanya perbedaan yang tajam antara poin sebagai *distance* yang merupakan skalar dengan garis sebagai *displacement* yang merupakan vektor, sehingga garis pada poin digambarkan sebagai tanda panah yang melingkar dan garis antarpoin digambarkan dengan tanda panah dua arah,

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Garis kuning, biru muda dan ungu garis waktu yang menghubungkan *value* dengan *fact,* begitu juga *fact* dengan *result* dan *result* dengan *value.* Berdasarkan Ilmu Fisika, energi terjadi di dalam waktu. Merunut tulisan Henderson (1917:6) dalam bukunya berjudul '*The Order of Nature: An Essay* ' materi terbuat di dalam ruang dan diaktifkan oleh energi di dalam waktu ('.. *the living thing must be made of matter in space and actuated by energy in time..*'). Oleh karena ini, dapat ditetapkan bahwa garis waktu juga adalah garis energi. Pernyataan ini digambarkan sebagai *administration diagram* yang dapat dibaca pada gambar berikut:

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

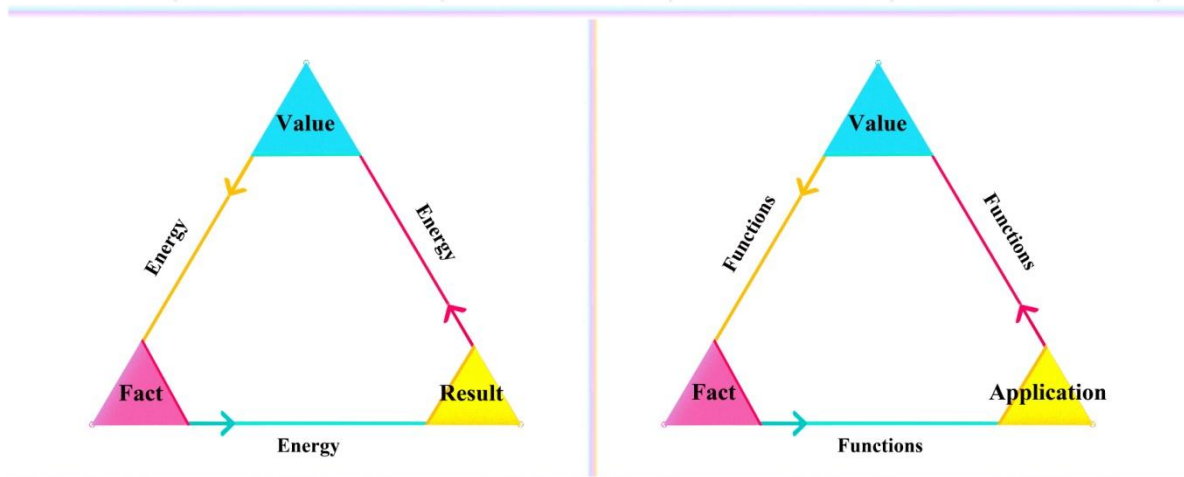
Time yang dipahami dalam Ilmu Administrasi merupakan *time* yang juga dipahami Psikologi sebagai *a position in the series.* Collins (1889:276) dalam bukunya yang berjudul '*An Epitome of The Synthetic Philosophy'* menulis bahwa '*time in general, as known to us, is the abstract of all relationsof position among successive states of consciousness*'. *Time* dan *space* berkaitan erat dengan hadirnya *motion,* yang merunut tulisan Collins (1889:279) merupakan '*relation of simultaneity between two relations: a relation of coexistent positions in space, and a relation of sequent positions in time*'.

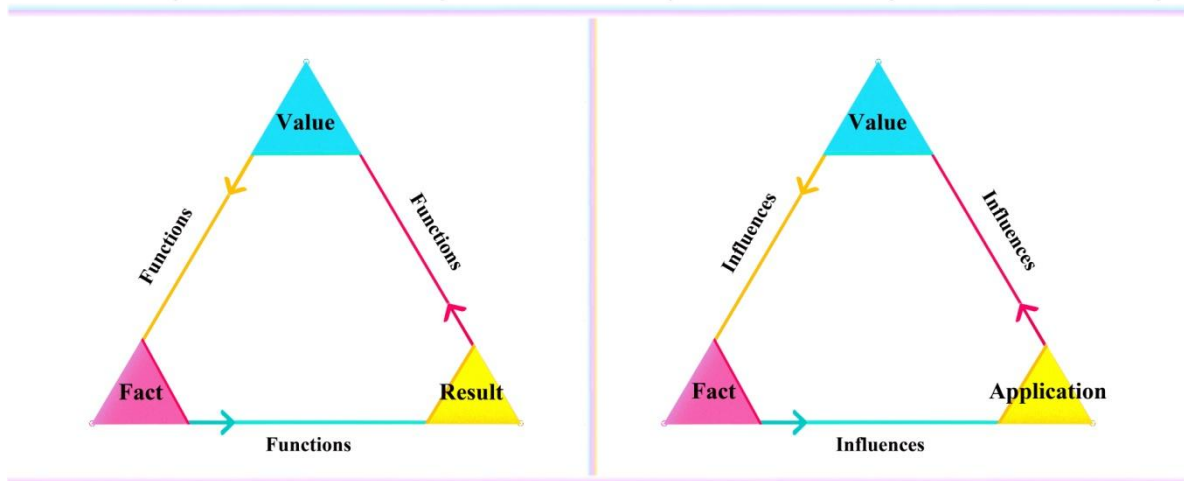
Energi adalah *a force* yaitu *a force acts upon an object* yang dapat diamati pada kerja (*work*) dengan adanya perpindahan objek (*displacement of the object*) yang disebabkan adanya energi sebagai *a force acts upon an object.* Dalam Ilmu Fisika, pernyataan ini dibaca sebagai ***work*** *was done upon the object.* Dalam Ilmu Administrasi, kita membacanya sebagai fungsi kerja, yang dalam konteks ini adalah fungsi memindahkan objek, dan fungsi ini terjadi karena adanya energi. Dengan begini, energi dapat kita ketahui dari berfungsinya pekerjaan, sehingga energi merupakan fungsi kerja. Collins (1889:85) dalam bukunya berjudul '*An Epitome of the Synthethic Philosophy*' menulis bahwa *functions is divisible into three most general divisions,* yaitu (1) *accumulation of force; (2) expenditure of force* dan (3) *transfer of force.*

56. Function may be classed as *statical,* as that of the skeleton, or *dynamical,* as that of nutrition. From another point of view, Function is divisible into three most general divisions; the *accumulation of force* (latent in food); the *expenditure of force* (latent in the tissues and certain matters absorbed by them); and the *transfer of force* (latent in the prepared nutriment or blood) from the parts which accumulate to the parts which expend.

Sumber: Collins, F. Howard. 1889:85. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Pada Diagram Administrasi pandangan ini dapat digambarkan seperti ini:

Administration Diagram

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Mengalirnya fungsi-fungsi kerja tertentu menimbulkan pengaruh-pengaruh tertentu, sehingga pengaruh merupakan aliran dan juga alir fungsi. Pengetahuan ini dapat digambarkan pada Diagram Administrasi seperti ini:

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

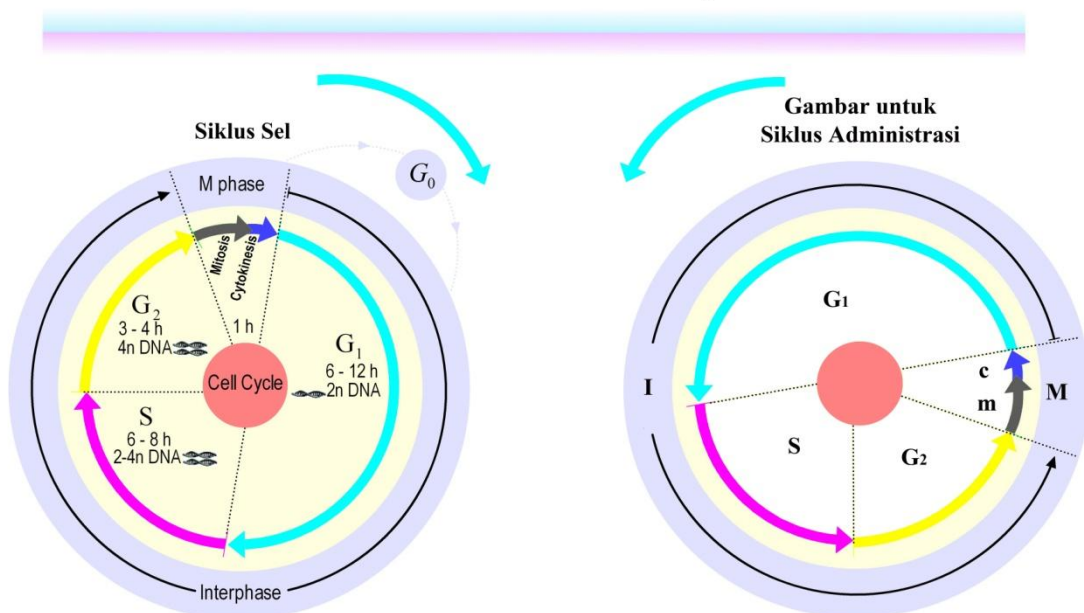
Fungsi-fungsi yang saling mempengaruhi mengalir sebagai fakta yang berulang dalam siklus administrasi. Di alam, fakta berulang ini dapat kita temukan pada siklus sel. Dengan memandang bahwa siklus administrasi merupakan siklus sel, maka semua prinsip dan aturan yang terdapat pada siklus sel, menjadi pengetahuan bagi Ilmu Administrasi.

Sumber gambar: http://users.minet.uni-jena.de. 2009. System Biology of The Cell Cycle. University Jena, German. Warna gambar siklus sel diolah oleh Levri Ardiansyah (2016) berdasarkan Hughes, Arthur. 1952. The Mitotic Cycle: The Cytoplasm and Nucleus during Interphase and Mitosis. London: Butterworths Scientific Publications.

Diagram Administrasi
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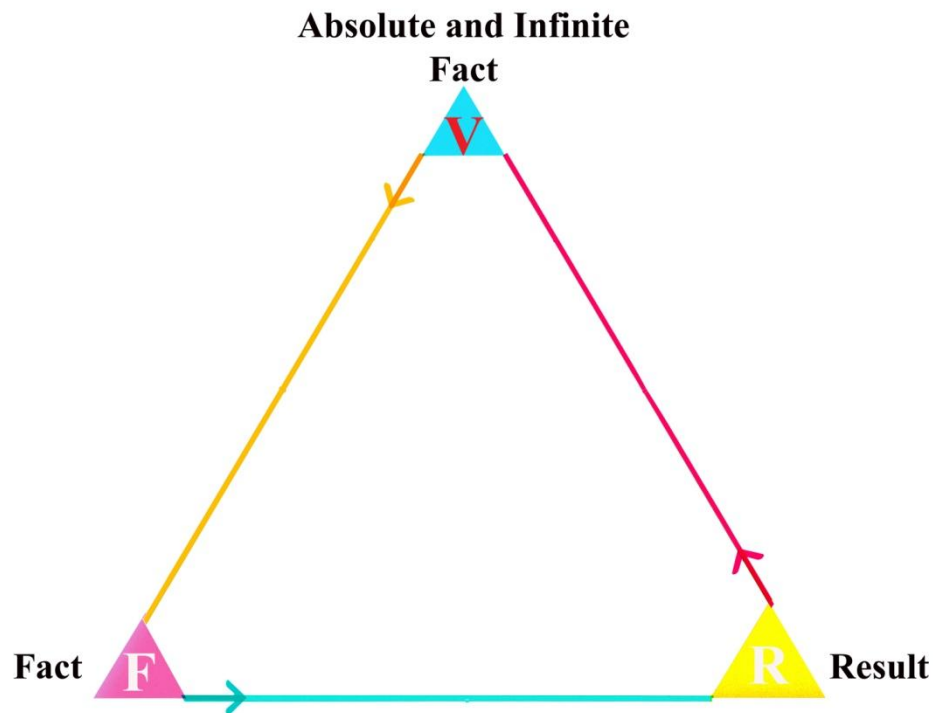
Gambar 1.1. Diagram Administrasi

Pada Diagram Administrasi, fakta Ilmu Administrasi terletak pada 2 lokasi yaitu poin ungu (*violet point*) dan poin kuning (*yellow point*), sehingga Ilmu Administrasi memiliki 2 fakta, yang utamanya adalah *violet fact* yang bersumber pada *blue point* dan fakta lainnya adalah *yellow fact* yang merupakan aplikasi dan hasil dari progres yang terjadi pada *violet fact. Blue point* atau *absolute and infinite fact* sesungguhnya bukanlah fakta karena fisik dan materinya tidak *real* ada. *Absolute and infinite fact* adalah keteraturan ketuhanan (*divine order*) yang hingga detik ini masih kontradiktif, apakah Tuhan adalah fakta atau bukan fakta. Bagi ilmuwan sejati, tentu saja Tuhan adalah fakta, karena ilmu adalah fakta. Selain ilmuwan sejati, Tuhan bukanlah fakta fisik melainkan fakta yang mutlak adanya (*aboslute*) dan tak dibatasi oleh apapun (*infinite*). Fakta tentang Tuhan merupakan postulat yang kebenarannya harus diterima tanpa perlu dipertanyakan.

Bagi Ilmu Administrasi, fakta keteraturan ketuhanan merupakan nilai (*value*), yaitu *terminal value* berupa keyakinan (*beliefs*) bahwa nilai-nilai ketuhanan ini merupakan sumber adanya fakta ilmiah. Oleh karena ini, pada Diagram

Administrasi, *blue point* merupakan *value point* yang tertulis dengan satu huruf V. Fakta pada *violet point* ditulis dengan satu huruf yaitu F dan hasil atau aplikasi pada *yellow point* ditulis dengan satu huruf jjuga yaitu R. Dengan begini, pada Diagram Administrasi tertulis 3 huruf yaitu VFR yang hadir mewakili kata *value, fact* dan *result.*
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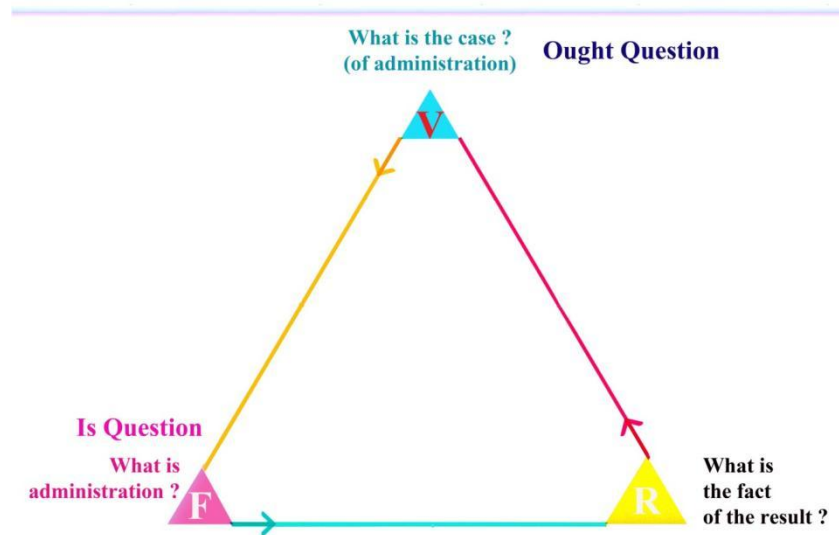
Gambar 1.2. Pertanyaan keilmuan pada Diagram Administrasi

Amat mudah membuat pertanyaan '*What is administration?*', namun tidak demikian untuk menjawabnya. Sumber kesulitannya ada pada sulitnya menunjukan mana fakta administrasi dan berupa apa? Waldo (1955: 62-63) bahkan menyarankan agar pertanyaan '*What is*' untuk Ilmu Administrasi dapat diganti dengan pertanyaan '*What is the case?*' karena merunut tulisan Waldo, dalam ranah Ilmu Sosial, pertanyaan ini juga mengarah pada *verifiable empirical regularities in the social realm,* tak jauh beda dengan *verifiable empirical regularities in the physical realm*. Dasar pertimbangan Waldo hingga mengusung pertanyaan '*What is the case?*' adalah pemikirannya bahwa '*in fact, the social realm is also physical*'. Pada Diagram Administrasi, penulis tetap menempatkan pertanyaan '*What is*' pada lokasi fakta (*point F*), dengan dasar pemikiran bahwa *administration realm is physical.* Sedangkan pertanyaan '*What is the case?*' lebih tepat berada pada lokasi nilai (*point V*) yaitu pertanyaan 'nilai apa yang terdapat pada suatu kasus tertentu dalam ranah Ilmu Administrasi?'.

Administration is a Solid Figure

Untuk menjawab pertanyaan '*What is administration?*' terlebih dahulu harus jelas tentang apa yang menjadi fakta Ilmu Administrasi? Berdasarkan introspeksi Ilmu Administrasi, penulis menemukan bahwa fakta Ilmu Administrasi adalah asosiasi terpadu (*solid association*). Dengan fakta ini, *is question* tentang Ilmu Administrasi dapat dirumuskan sebagai '*What is solid association?*'. Pertanyaan ini dapat dijawab seperti ini: asosiasi terpadu (*solid association*) adalah fakta lokasi yang terpadu (*solid location*) berdasarkan keteraturan yang berulang dalam proses konsolidasi hingga menghasilkan 2 atau lebih bagian yang bermitra (*mitral division*). Sebagai ilmu, penjelasan jawaban juga harus dapat dikenakan *is question* kembali, yaitu (1) '*what is solid location?;* (2) '*what is consolidation?'* dan (3) '*what is solid division?*. Kesemua pertanyaan ini tentu saja harus dijawab sebagai administrasi, yaitu jawaban yang amat berbeda dengan bidang-bidang ilmu manapun. Sehingga *solid location* bukanlah Bumi sebagaimana telah menjadi bidang Geologi, begitu juga *consolidation* bukanlah proses perubahan air menjadi es sebagaimana telah menjadi bidang Ilmu Fisika.
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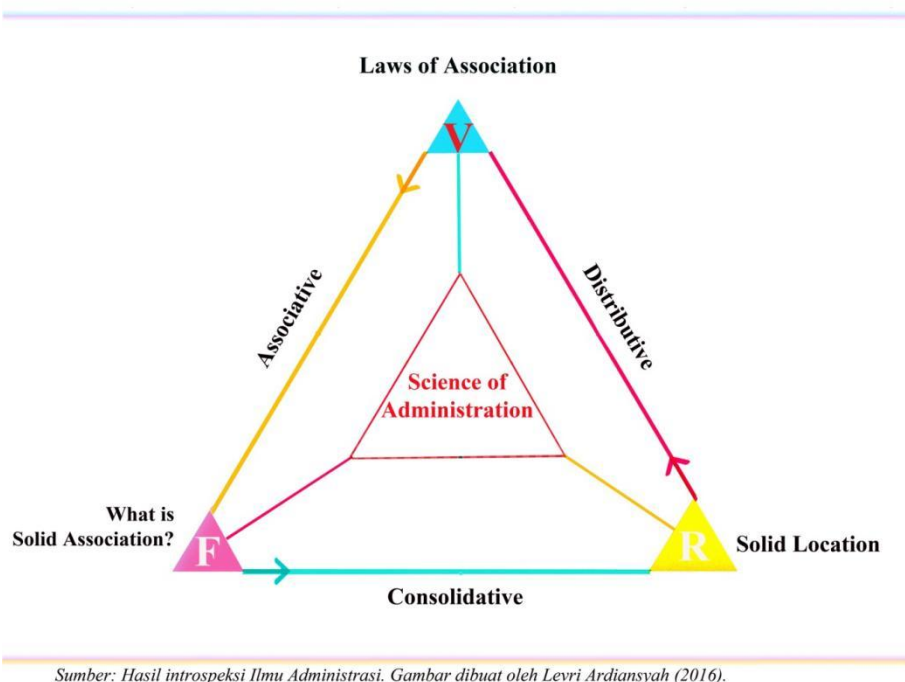
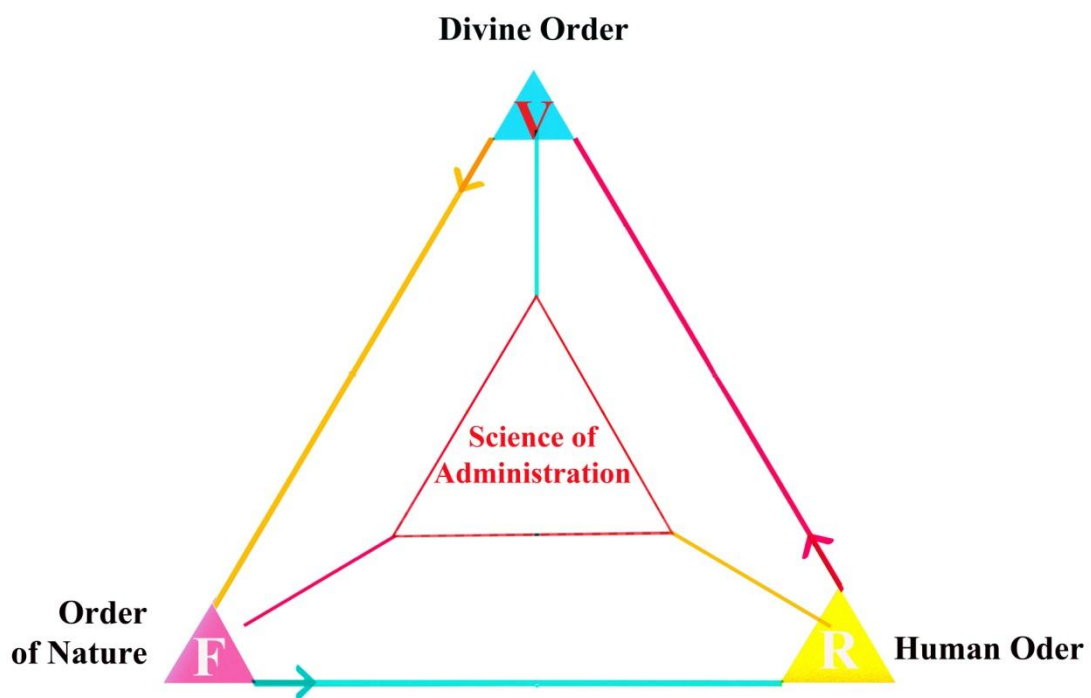
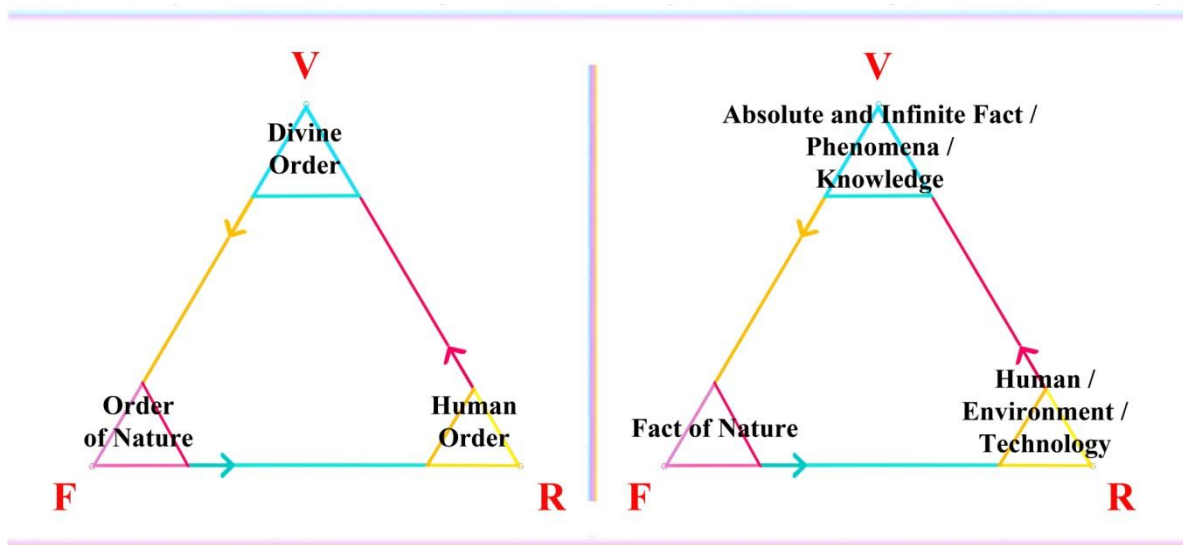
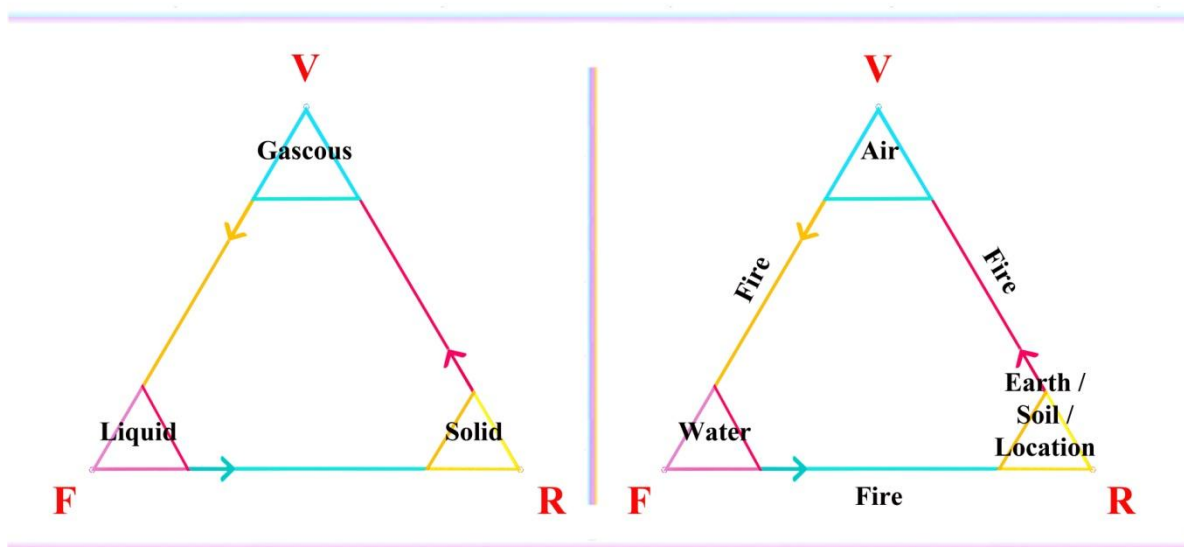
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Fakta asosiasi terpadu (*solid association*) bersumber pada nilai keteraturan dan keseimbangan untuk menghasilkan keterpaduan kehidupan manusia, alam dan alat. Keteraturan adalah inti administrasi, yaitu keteraturan ketuhanan (*divine order*), keteraturan alam (*order of nature*) dan keteraturan manusia (*Human order*). Keteraturan ketuhanan adalah nilai (*value*), keteraturan alam adalah fakta (*fact*) dan keteraturan manusia adalah hasil (*result*) dari keteraturan ketuhanan yang progresnya terlihat pada alam semesta. Perpaduan ketiga keteraturan inilah yang merupakan administrasi sesungguhnya. Dalam konteks ini dapat dituliskan bahwa *the origin of administration is order*.

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Fakta adanya Ilmu Administrasi terdapat pada keteraturan alam, yaitu fakta benda-benda fisik maupun materi yang telah dibuktikan secara ilmiah oleh Ilmu Fisika dan Ilmu Kimia. Perbedaan antara fakta fisika maupun fakta kimia dengan fakta administrasi terletak pada nilai yang terkandung dalam fakta. Ilmu Administrasi memiliki fakta yang nilainya bersumber pada *absolute and infinite fact* berupa fenomena yang dipikirkan hingga menjadi pengetahuan (*knowledge*). Dengan begini, fakta Ilmu Administrasi adalah fakta fisik dan kimiawi dengan nilai-nilai yang terkandung didalamnya bersumber pada pengetahuan administrasi.

Administration Diagram

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Berdasarkan Diagram Administrasi ini, dapat ditunjukan secara nyata tentang fakta administrasi sebagai fakta asosiasi, yang merupakan siklus administratif dengan 3 karakteristik utama yaitu asosiatif, berdasarkan proses konsolidasi (*consolidating*) dan menghasilkan beberapa bagian yang padu (*solid division*). Contoh fakta kimiawinya adalah air yang tersusun dari 2 atom hidrogen yang terikat secara kovalen pada satu atom oksigen. Ikatan kovalen ini sederhananya menunjukan stabilitas tarikan dan tolakan dari pihak-pihak yang berikatan. Dalam Ilmu Fisika, air adalah air yang kita sentuh, lihat dan rasakan sebagai air dengan ciri fisiknya yang memiliki suhu, kekeruhan, warna, bau dan rasa. Dalam Ilmu Administrasi, air adalah perairan, yaitu air yang terasosiasi karena memiliki siklus, memiliki ciri seimbang, mengalami proses konsolidasi dan menghasilkan bentuk yang solid berupa es, sehingga asosiasi air adalah fakta ilmiah yang harus ditata berdasarkan Ilmu Administrasi agar menghasilkan keterpaduan antara kebutuhan manusia, persediaan air bersih di alam dan teknologi yang digunakan. Pada contoh air ini, Ilmu Administrasi adalah ilmu tentang asosiasi air yang memiliki teori asosiasi untuk menjelaskan konsep tentang konsolidasi penataan air melalui suatu sistem yang dikenal sebagai Administrasi Perairan. Begitu juga dengan udara yang dalam Ilmu Administrasi merupakan fakta asosiasi udara yang dapat diteliti secara ilmiah berdasarkan Ilmu Administrasi Udara dan Antariksa. Fakta asosiasi lainnya adalah asosiasi tanah yang dapat diteliti secara ilmiah berdasarkan Ilmu Administrasi Pertanahan dan asosiasi api yang dapat diteliti secara ilmiah berdasarkan Ilmu Administrasi Energi.

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Dengan begini, fakta administrasi berupa *solid association* adalah suatu perpaduan fisik yang dikenal juga sebagai *geometric solid* yang memiliki panjang, luas dan ketebalan. Hart & Feldman (1911:2) dalam bukunya berjudul '*Plane and Solid Geometry*' menulis bahwa '*a physical solid is called a geometric solid. A geometric solid has length, breadth and thickness. It may also be divide into parts. The boundary of a solid is called a surface*'.

2. The space in which we live, although boundless and unlimited in extent, may be thought of as divided into parts. A physical solid occupies a limited portion of space. The portion of space occupied by a physical solid is called a **geometric solid.**

3. A geometric solid has length, breadth, and thickness. It may also be divided into parts. The boundary of a solid is called a **surface.**

4. A surface is no part of a solid. It has length and breadth, but no thickness. It may also be divided into parts. The boundary of a surface is called a **line.**

5. A line is no part of a surface. It has length only. It may also be divided into parts. The boundary or extremity of a line is called a **point.**

A point is no part of a line. It has neither length, nor breadth, nor thickness. It cannot be divided into parts. It is position only.

Sumber: Hart, C.A. & Feldman, Daniel D. 1911:2. Plane and Solid Geometry. New York: American Book Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Solid location terdiri dari 2 bentuk, yaitu (1) *dynamical state of manner* dan (2) *statical conditions.* Manusia dan hewan yang ada pada lokasi merupakan *dynamical state of manner* sedangkan lingkungan fisik dan alat-alat hasil *intellectual property* yang terdapat pada lingkungan merupakan *statical*

conditions. Collin (1889:68) dalam bukunya yang berjudul '*An Epitome of the Synthetic Philosophy* menulis hasil penelitian Graham yang menunjukan substansi dari *solid* lalu mengeelompokannya ke dalam dua bentuk seperti dapat dibaca pada gambar ini:

6. Here we are naturally introduced to Graham's researches, showing that solid substances exist under two forms—the *colloid* or jelly-like, as starch; and the crystalloid or crystal-like. "The colloidal is, in fact, a dynamical state of matter, the crystalloidal being the statical condition. The colloid possesses *energia.* It may be looked upon as the probable primary source of the force appearing in the phenomena of vitality. To the gradual manner in which colloidal changes take place (for they always demand time as an element) may the characteristic protraction of chemico-physical changes also be referred" (*Chemical and Physical Researches,* 1876, p. 554).

Sumber: Collins, F. Howard. 1889:68. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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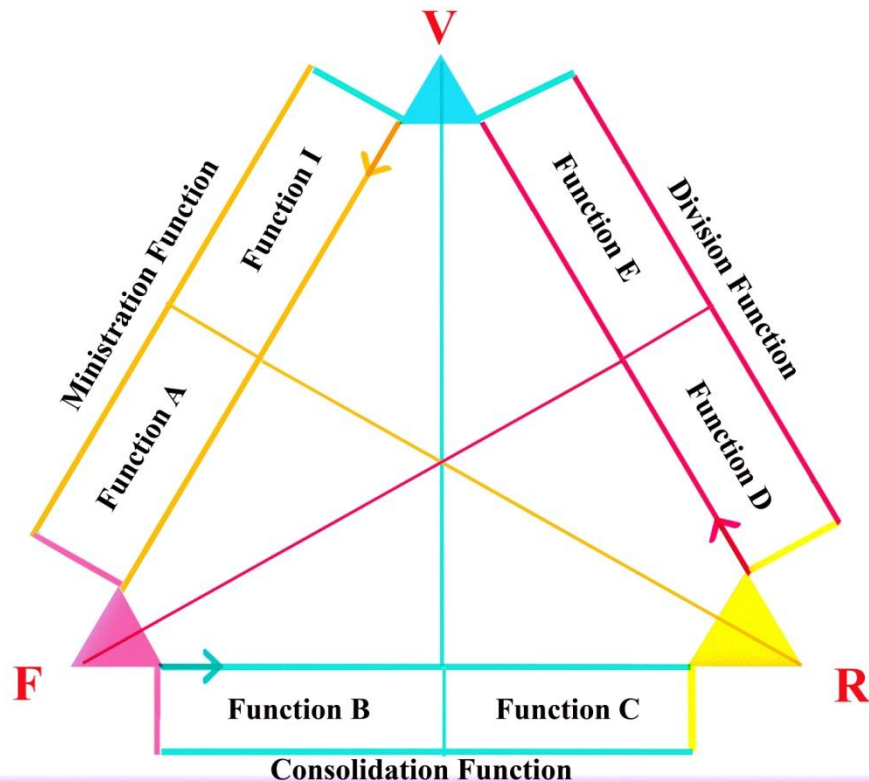
Struktur Administrasi

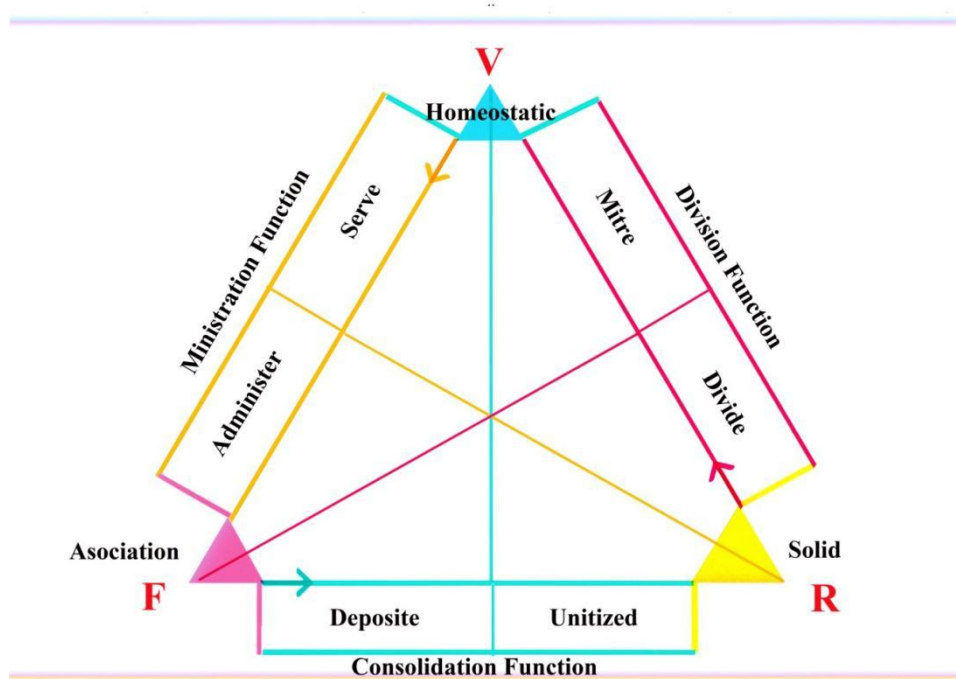
Struktur administrasi merupakan struktur kelompok berdasarkan fungsi yang terdiri dari kelompok fungsi dan anggota kelompok fungsi. Pada Diagram Administrasi, fungsi administrasi tergambar sebagai garis *collinear* yang diawali tanda panah sebagai *ray* baik berupa tanda panah kuning, biru maupun ungu. Sebagai aturan yang berlaku umum, fungsi administrasi dinyatakan sebagai fungsi I, fungsi A, fungsi B, fungsi C, fungsi D, dan fungsi E.

Struktur Administrasi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Fungsi Administrasi

Jika berdasarkan sejarah pertumbuhan makna kata administrasi di masyarakat Yunani Kuno, maka fungsi pertama (fungsi I) adalah *minister* yang berarti *serve.* Hal ini juga sesuai dengan pemikiran Aristotle bahwa *minister* merupakan pelayanan administratif yang dilakukan berdasarkan sifat *prudence* (berhati-hati) terhadap politik, ekonomi, hukum dan individu. Kesimpulan bahwa *serve* adalah fungsi yang pertama juga selaras dengan pemikiran filosofis Descartes bahwa keteraturan alam terjadi karena adanya fungsi pelayanan. Oleh karena ini, dapat dinyatakan bahwa fungsi pertama pada garis fungsi ministrasi adalah fungsi memberi pelayanan (*serve*).

Selanjtunya, fungsi pelayanan bergerak secara asosiatif dari keadaan rendah sebagai *slave* menuju keadaan tinggi yang terorganisir dan terkendali dalam rupanya sebagai pelayanan berotoritas (*administer*), sehingga dapat dinyatakan bahwa fungsi kedua pada garis fungsi ministrasi adalah fungsi penataan dan pengendalian (*administer*). Keadaan ideal pada point F adalah asosiasi, yang tinggi berupa organisasi negara dan yang rendah berupa *community.* Setelah melalui masa transisi unidireksional yang searah, Fungsi ministrasi berubah menjadi fungsi konsolidasi berupa proses menjadi *solid,* yang diawali dengan fungsi *deposite* pada keadaan rendah menjadi fungsi bersatu padu (*unitized*)

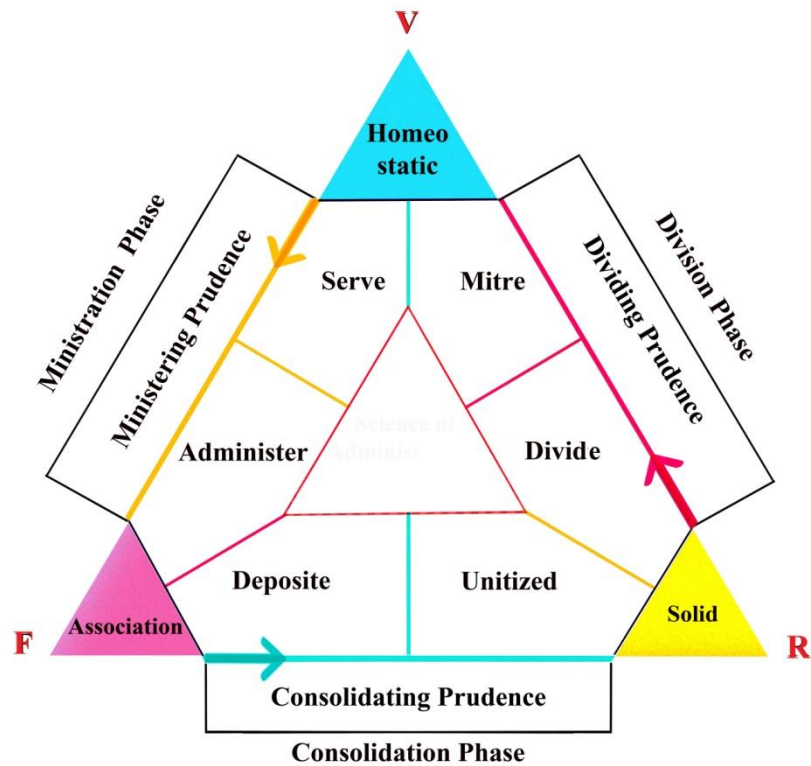
dalam beragam perbedaan (*bhinneka tunggal ika*). Keadaan ideal pada point R adalah keadaan padu (*solid*) antara manusia, alam dan lingkungan. Setelah masa transisi, memasuki fase divisi, yaitu keadaan yang sudah padu dibagi menjadi 2 atau lebih sebagai hukum alam tentang tumbuh dan berkembang. Fungsi divisi ini terdiri dari keadaan rendah dengan fungsi *divide* dan keadaan tinggi sebagai fungsi *mitre.*

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Dengan begini, struktur administrasi terdiri dari 3 kelompok fungsi dengan masing-masing kelompok terdiri dari 2 anggota, sehingga keseluruhan terdapat 6 anggota kelompok fungsi yaitu fungsi I (*serve*), fungsi A (*administer*), fungsi B (*deposite*), fungsi C (*unitized*), fungsi D (*divide*) dan fungsi E (*mitre*).

Laws of Association menjadi prinsip mendasar yang melandasi bekerjanya fungsi-fungsi administrasi sealir waktu yaitu:

1. Fungsi Pelayanan (*serve*)
2. Fungsi Penataan melalui pengendalian (*administer*)
3. Fungsi konsolidasi yang diawali dengan *deposition* (*deposite*)
4. Fungsi Persatuan (*unitize*);
5. Fungsi Pembagian (*divide*);
6. Fungsi Kemitraan (*mitre*).

Keenam fungsi ini berada pada 3 fase yaitu (1) *ministration phase* yang terdiri dari *serve* dan *administer;* (2) *consolidation phase* yang terdiri dari *deposite* dan *unitize;* dan (3) *division phase* yang terdiri dari *divide* dan *mitre.* Pada setiap fase terdapat satu karakteristik administrasi yaitu kehati-hatian (*prudence*), sehingga

ministration phase dikerjakan dengan *ministering prudence, consolidation phase* dikerjakan dengan *consolidating prudence* dan *division phase* dikerjakan dengan *dividing prudence.*

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Fungsi-Fungsi Adminstrasi terdiri dari:

1. Fungsi Pelayanan, yang dirumuskan dengan menggunakan kata kerja 'Layani' (*serve*);
2. Fungsi Penataan, yang dirumuskan dengan menggunakan kata kerja 'Tata' (*minister/administer*);
3. Fungsi Padu, yang dirumuskan dengan menggunakan kata kerja 'Padukan' (*solidify/consolidate*);
4. Fungsi Pembagian, yang dirumuskan dengan menggunakan kata kerja 'Bagi 2' (*divide by two*);
5. Fungsi Kemitraan, yang dirumuskan dengan menggunakan kata kerja 'Bermitralah' (*mitral/mitre*);
6. Fungsi Penjagaan, yang dirumuskan dengan menggunakan kata kerja 'Jaga' (*preserve*); dan
7. Fungsi Keadilan, yang dirumuskan dengan menggunakan kata kerja 'Berlakulah adil' (*equity*).

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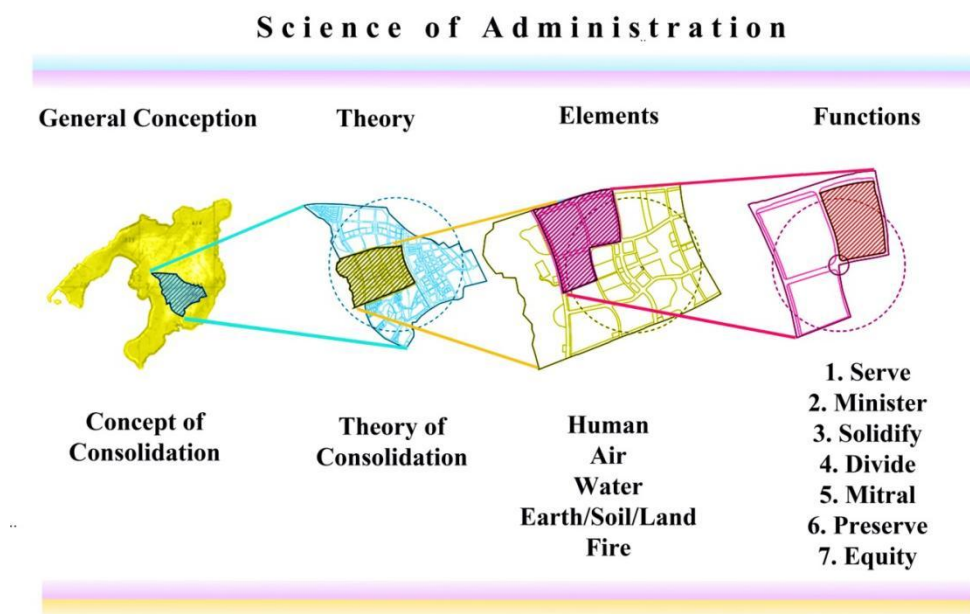
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016/.

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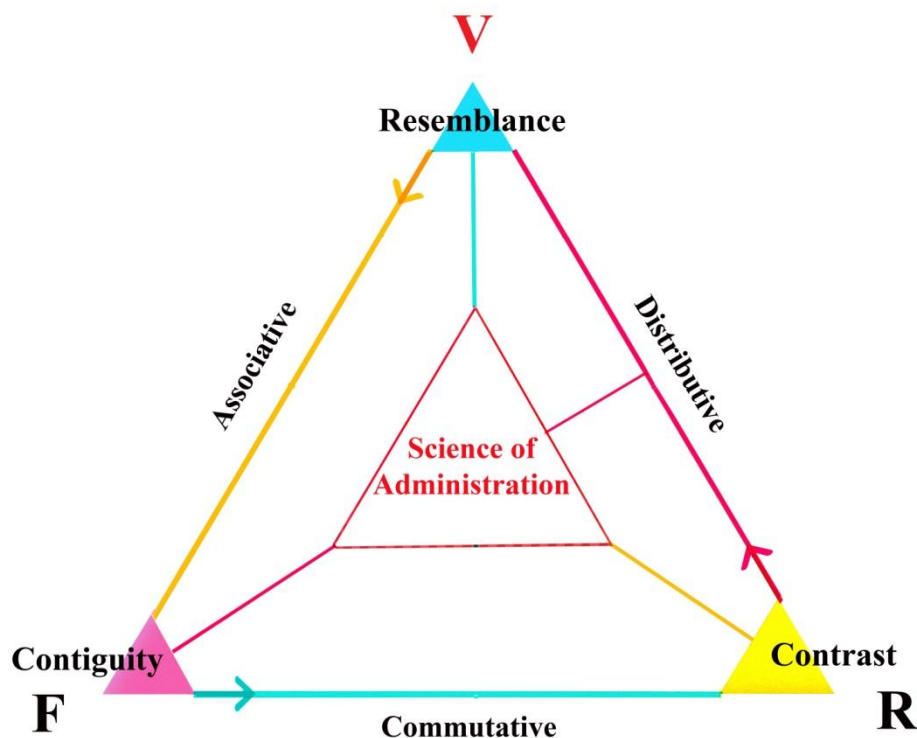
Aturan Administrasi

Aturan administrasi bersumber pada petunjuk berupa *Laws of Association* yang terdiri dari *resemblance, contiguity* dan *contrast.* Sebagai petunjuk yang sekaligus merupakan prinsip mendasar berlangsungnya interkoneksi administrasi, maka *Laws of Association* ini berada pada point VFR dengan *resemblance* pada *point V, contiguity* pada *point* F dan *contrast* pada *point R.* Pada garis, terdapat aturan *associative,* aturan *commutative* dan aturan *distributive.*

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Value yang bersumber pada *divine order* merupakan hukum mendasar (*laws*) yang alirnya mempengaruhi fakta.

Hukum mendasar yang merupakan sumber interkoneksi ini adalah *The Law of Association,* baik yang dirumuskan oleh Plato dengan *Two Laws of Association* maupun yang dirumuskan oleh Aristotle sebagai *Three Laws of Association.* Pada *Two Laws of Association,* Plato merumuskan *resemblance* dan *contiguity* sebagai prinsip mendasarnya dan pada *Three Laws of Association,* Aristotle menambahkan satu prinsip yaitu *contrast.* Pada Diagram Administrasi, *The Laws of Association* ini dapat digambarkan menjadi Diagram Asosiasi seperti ini:

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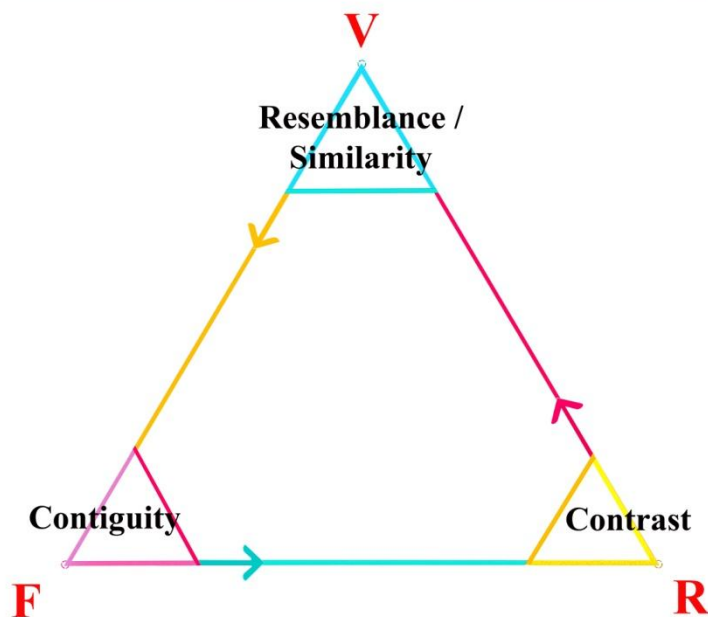
Diagram Asosiasi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Resemblance atau *Similarity* berada pada satu poin yang sama dengan *divine order* dan *value* karena mempersamakan Tuhan dengan kekuatan alam semesta yang maha dahsyat adalah buah pikiran manusia (*to think*) berdasarkan nilai-nilai *resemblance* itu sendiri. *Contiguity* berada pada satu poin yang sama dengan *order of nature* dan *fact* karena *contiguity* adalah menjadi tahu (*to know*) berdasarkan pengalaman yang baru saja terjadi, sedangkan *contrast* berada pada satu poin yang sama dengan *result* karena *contrast* adalah *habitual connection* yaitu pengalaman sebagai hasil dari durasi tindakan pada manusia yang satu diterapkan (*applied*) terhadap pengalaman manusia lainnya.

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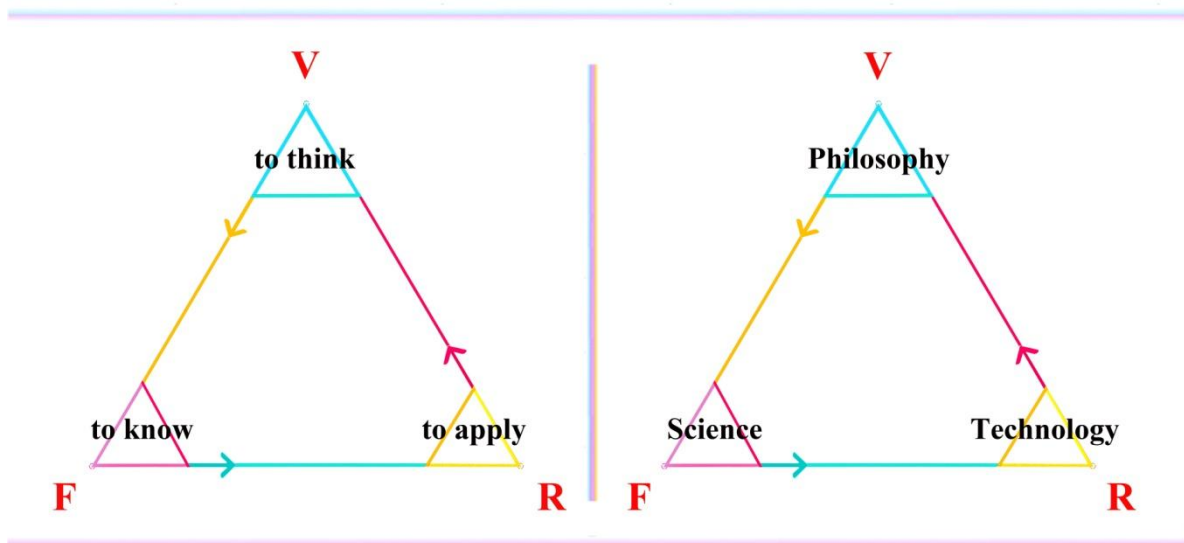
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Filosofi administrasi adalah filosofi tentang keteraturan. Pada *divine order,* terdapat kontradiksi pemikiran tentang eksistensi Tuhan yaitu pemikiran tentang Tuhan yang satu dengan Tuhan yang banyak, pemikiran Tuhan Yang Maha Esa dengan Ketuhanan Yang Maha Esa. Ilmu Administrasi hadir untuk menata kontradiksi ini menjadi teratur hingga tercipta harmonisasi melalui nilai *homeostatic.* Dengan dasar pemikiran ini, maka filosofi keteraturan dalam administrasi adalah wujud dari nilai *homeostatic,* sehingga *homeostatic* menempati poin biru muda.

Science yang terlahir bermakna *to know* memang hadir untuk mengetahui fakta-fakta keteraturan alam dan membuktikan kebenarannya melalui metode penelitian ilmiah, terutama metode eksperimen. Berdasarkan introspeksi Ilmu Administrasi, penulis menemukan bahwa fakta Ilmu Administrasi adalah fakta asosiasi, sehingga dengan demikian *association* menempati poin ungu bersama-sama dengan *order of nature* dan *science.* Sebagai hasil dari *association* ini adalah *solid,* sehingga menempati poin kuning pada Diagram Administrasi seperti ini:

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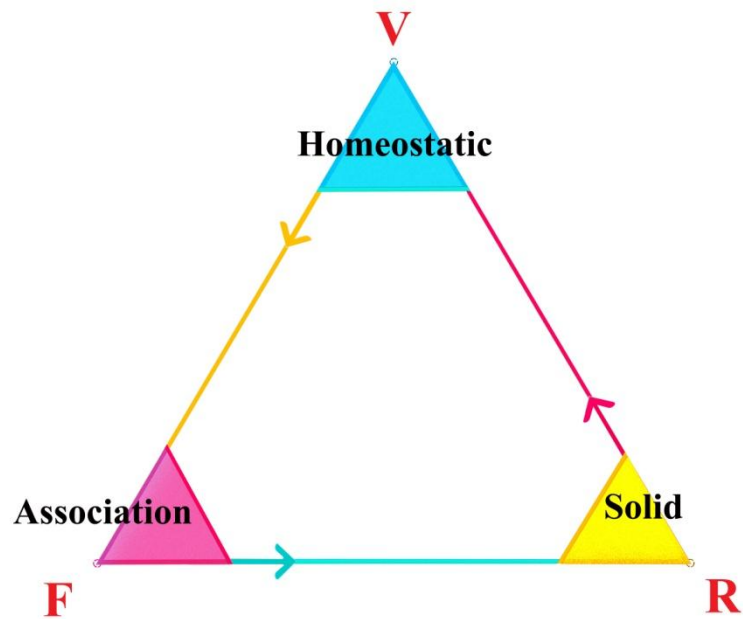
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Identitas Administrasi

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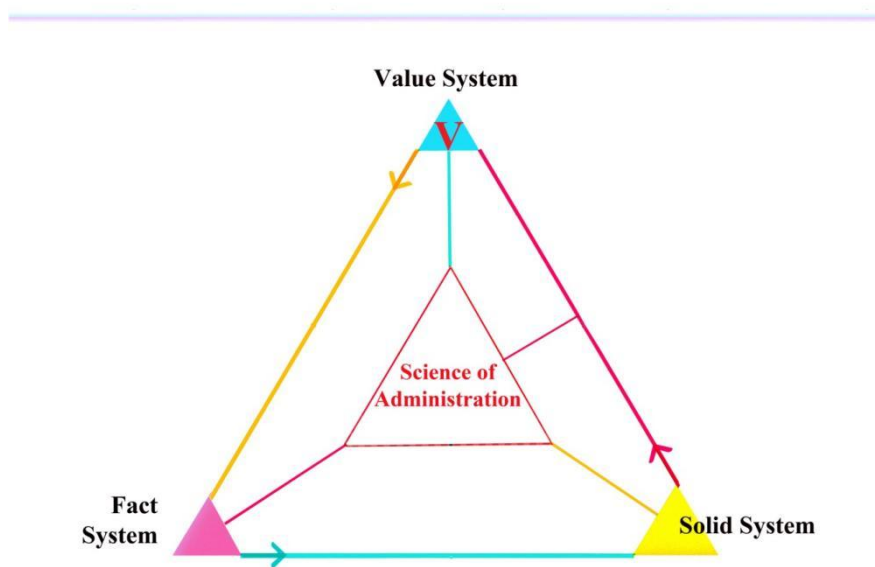
Melayani adalah identitas administrasi.

Sistem Administrasi
Sistem administrasi terdiri dari 3 sistem yang saling terkoneksi secara terpadu dalam siklus administrasi. Ketiga sistem administrasi adalah (1) *value system,* (2) *fact system* dan (3) *solid system. Value system* merupakan sistem nilai dan sistem hukum. *Fact system* merupakan sistem administrasi negara dan sistem administrasi komunitas, sedangkan *Result system* merupakan sistem administrasi terpadu yang terdiri dari:

1. sistem administrasi kemanusiaan (meliputi sistem administrasi pendidikan, sistem administrasi kesehatan, dan sistem administrasi kependudukan);
2. sistem administrasi pertanahan
3. sistem administrasi perairan
4. sistem administrasi udara dan antariksa
5. sistem administrasi energi
6. sistem administrasi peradaban dan teknologi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Komposisi Ilmu Administrasi

Komposisi sebagai Bacaan Ilmu Administrasi

Menjawab pertanyaan 'Ilmu Administrasi terdiri dari konsep dan fungsi apa sajakah?' tentu saja berarti mengemukakan komposisi Ilmu Administrasi. Serupa dengan pertanyaan '' terdiri dari apa sajakah masyarakat?', Wilkin (1903:59) dalam bukunya berjudul '*Control in Evolution, A Discussion of the Fundamental Principles of Social Order and Progress'* menjawab bahwa masyarakat dapat diketahui dari karakteristiknya, dan karakteristik masyarakat ditentukan oleh 2 faktor, yaitu (1) komposisi dari unit-unit yang membentuk masyarakat (*the nature of the units composing it*)*;* dan (2) berdasarkan ikatan setiap unit-unit masyarakat (*by the nature of the bonds uniting these units*).

Whatever other characteristics may be predicated of it, society is obviously an aggregate of individual human beings. But the character of an aggregate is always of necessity determined wholly, where it is free from foreign disturbance, by two factors :—first, by the nature of the units composing it ; and, secondly, by the nature of the bonds uniting these units.

Sumber: Wilkin, George F. 1903:59. Control in Evolution, A Discussion of the Fundamental Principles of Social Order and Progress. New York: A.C. Armstrong & Son. Gambar dibuat oleh Levri Ardiansyah (2016).

Di dalam seni, Kompisisi merupakan metode menempatkan secara bersama-sama antara garis dan warna sehingga tercipta harmoni. Profesor Dow (1913) dalam bukunya yang berjudul '*Compotition: A Series of Exercises in Art Structure for the Use of Students and Teachers*'menulis bahwa komposisi merupakan proses yang fundamental dalam seni menciptakan harmoni.

COMPOSITION

A SERIES OF EXERCISES IN ART STRUCTURE
FOR THE USE OF STUDENTS
AND TEACHERS

BY

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and Art Students' League of New York
Author of Theory and Practice of Teaching Art
and The Ipswich Prints

ΣΥΝΘΕΣΙΣ

SEVENTH EDITION—REVISED AND ENLARGED
WITH NEW ILLUSTRATIONS AND COLOR PLATES

GARDEN CITY, NEW YORK
DOUBLEDAY, PAGE & COMPANY
1913

Composition was chosen as a title because that word expresses the idea upon which the method here presented is founded — the "putting together" of lines, masses and colors to make a harmony. Design, understood in its broad sense, is a better word, but popular usage has restricted it to decoration. Composition, building up of harmony, is the fundamental process in all the fine arts. I hold that art should be approached through composition rather than through imitative drawing. The many different acts and processes combined in a work of art may be attacked and mastered one by one, and thereby a power gained to handle them unconsciously when they must be used together.

Sumber: Dow, Arthur Wesley. 1913:3. Compotition: A Series of Exercises in Art Structure for the Use of Students and Teachers. New York: Doubleday, Page & Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Pentingnya komposisi sebagai gambaran karakteristik suatu konsep keilmuan telah lama ditunjukan oleh Newton dan Dalton. Untuk menjelaskan tentang atom, Newton dan Dalton menggunakan *Law of Composition.* Newton menggambarkan komposisi pada atom yang dia deskripsikan sebagai partikel yang keras, tak dapat ditembus dan dapat bergerak, sehingga atom sangat sulit dipecah belah menjadi beberapa bagian, sehingga tidak ada satu kekuatan hebat sekalipun yang dapat membagi apa yang telah Tuhan ciptakan pertama kali. Ide Newton bahwa energi berupa materi ini yang tidak dapat diciptakan dan tidak dapat dimusnahkan, kemudia dikenal sebagai '*Law of the Conservation of Matter'*. Hukum Newton ini juga terdapat pada Dalton's *Atomic Theory* yang menjelaskan tentang komposisi atom. Merunut tulisan Dalton, bermacam-macam substansi yang terdapat pada materi dibangun dari sejumlah angka atom yang bersesuaian dengan beberapa elemen yang berbeda, sehingga semua atom dari elemen-elemen tertentu menjadi sepertinya serupa dan memiliki berat yang sama. Dalton memandang formasi dari campuran tergantung pada kombinasi angka atom pada elemen, yang menghasilkan '*compound atoms*' yang sekarang dikenal sebagai molekul.

Newton had pictured the *atom* as a "hard, impenetrable, movable particle . . . so very hard as never to wear or break in pieces: no ordinary power being able to divide what God himself made One, in the first creation." The idea that matter is uncreatable and indestructible led to the so-called law of the conservation of matter, a conception inherent in Dalton's atomic theory. Dalton held that the multitudinous substances of the material world are built up from a limited number of kinds of atoms, corresponding to the different elements, all the atoms of a particular element being alike and having the same weight. He regarded the formation of compounds as dependent upon combination between small whole numbers of atoms of the elements concerned, the resulting "compound atoms" (now known as *molecules*) of a compound being again alike and having the same weight.

Sumber: Newman, James R. 1955:167. What is Science? New York: Simon and Schuster. Gambar dibuat oleh Levri Ardiansyah (2016).

Konsep yang dibangun oleh Dalton melalui serangkaian eksperimen inlah yang menjadi *original foundation of Dalton's atomic theory.* Dalam konteks komposisi Ilmu Administrasi, Dalton's *Atomic Theory* dapat menjadi landasan ilmiah merumuskan komposisi Ilmu Administrasi berdasarkan '*Laws of Composition*' seperti ini:

1. *The Law of Fixed Proportions* atau *The Law of Constant Composition*
   The elements combine together in fixed proportions by weight atau dengan kalimat lain *the same chemical compound always consists of the same elements combined together in the same proportions.*

These conceptions, or postulates, led to the establishment, by experimental observations, of three main laws which formed the original foundations of Dalton's atomic theory. (1) *The law of fixed proportions* (or constant composition) states that the elements combine together in fixed proportions by weight; in other words, the same chemical compound always consists of the same elements combined together in the same proportions. For example, pure water, however obtained or prepared, always contains one-ninth of hydrogen and eight-ninths of oxygen by weight.

(2) *The law of multiple proportions* states that when two elements unite to form more than one compound, the different weights of one which combine with a constant weight of the other bear a simple ratio to each other. Thus, hydrogen and oxygen give rise to (*a*) water, and (*b*) hydrogen peroxide, containing 11.11% and 5.88% of hydrogen, respectively. The weights of oxygen combining with one part by weight of hydrogen are therefore 8 parts in water and 16 in hydrogen peroxide, these being in the simple ratio 1:2.

Sumber: Newman, James R. 1955:167. What is Science? New York: Simon and Schuster. Gambar dibuat oleh Levri Ardiansyah (2016).

2. *The Law of Multiple Proportions*
   When two elements unite to form more than one compound, the different weights of one which combine with a constant weight of the other bear a simple ratio to each other.
3. *The Law of Reciprocal Proportions*
   The proportions in which two elements combine separately with a third element are in a simple ratio to those in any compound of the first two elements.

(3) *The law of reciprocal proportions* states that the proportions in which two elements combine separately with a third element are in a simple ratio to those in any compound of the first two elements. For example, 1 part by weight of oxygen combines with 0.125 part of hydrogen (to form water), or with 0.875 part of nitrogen (to form nitric oxide). The proportions here are 0.125 (hydrogen) to 0.875 (nitrogen), or 1:7. The first two elements, hydrogen and nitrogen, combine together (to form ammonia) in the proportions 1 to 4.67, or 1½:7. The "simple ratio" is thus 1/7 to 1½/7, or 2:3.

A little thought will show that the conclusions summarized in these three laws are logical consequences of Dalton's original postulates.

Sumber: Newman, James R. 1955:168. What is Science? New York: Simon and Schuster. Gambar dibuat oleh Levri Ardiansyah (2016).

Psikologi memiliki teori komposisi yaitu '*Composition Theory of Mind*' seperti ditulis oleh Baldwin (1913:84) dalam bukunya yang berjudul '*History of Psychology A Sketch and an Interpretation. Volume 2*' seperti ini:

In interpreting the actual mental life, Spencer retained the purely structural and associationist point of view. He extended the structural and analytic conceptions—the theory of mental "elements"—to a general "composition theory of mind," replacing Condillac's individual human statue by a racial animal colossus, so to speak. Beginning with a primitive sensation or "feeling," accompanied by an elementary nervous process or "shock," a series of compositions takes place, resulting in more and more compound states. All concrete mental states are compounds resolvable by analysis. The first departure from simple feeling is a feeling of the relation of feelings; the presentative passes into the representative, the representative into the re-representative, etc. Thus the process goes on.

Sumber: Baldwin, James Mark. 1913:84. History of Psychology A Sketch and an Interpretation. Volume 2. London: Watt & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

Abraham Tucker (1705-1774) dalam buku karya Warren (1921:066) berjudul '*A History of the Association Psychology*' berpandangan bahwa komposisi merupakan salah satu mode dari kombinasi ide. Mode lainnya adalah asosiasi. Tucker dianggap sebagai orang yang pertama kali mengakui secara eksplisit adanya perbedaan antara 'persatuan tanpa adanya perubahan komponen' (*a union without alteration of components*) dengan koneksi yang dapat dikategorikan mencair bersama yang membentuk satu kesatuan dengan kompleksitas ide didalamnya (*the sort of connection wherein the ideas so 'melt together as to form one single complex idea'*). Bagi Bangsa Indonesia, koneksi semacam ini dikenal sebagai '*Bhinneka Tunggal Ika*'. Pada proses perkembangan selanjutnya pandangan Tucker tentang komposisi ini kemudian menjadi terbangun ke dalam *Theory of Mental Chemistry* dan dikemudian hari, komposisi ini memberi kontribusi yang penting bagi *The Association Theory.*

Tucker gives the generic name of ***combination*** to this juncture of ideas, which he says includes two separate modes, ***association*** and ***composition***. Thus Tucker was the first to recognize explicitly the difference between a union without alteration of the components, and the sort of connection wherein the ideas so " melt together as to form one single complex idea." [1] The latter process, composition, or in modern terms ***fusion***, was afterwards developed into the theory of mental synthesis or mental chemistry. Tucker's statement of this principle is perhaps his most important contribution to the association theory: " A compound may have properties resulting from the composition which do not belong to the parts singly whereof it consists." [2]

Sumber: Warren, Howard C. 1921:066. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Pandangan Locke tentang *composition* dapat dibaca pada buku karya Warren (1921:39) berjudul '*A History of the Association Psychology*' seperti ini:

In another passage Locke gives the name of ***composition*** to the operation whereby the mind 'puts together several of those simple ideas it has received from sensation and reflection, and combines them into complex ones.' [2] "As simple ideas are observed [by the senses] to exist in several combinations united together, so the mind has a power to consider several of them united together as one idea; and that not only as they are united in external objects, but as itself has joined them together." [3]

Sumber: Warren, Howard C. 1921:39. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Belajar pada Fakta Keteraturan Alam

Siklus Sel

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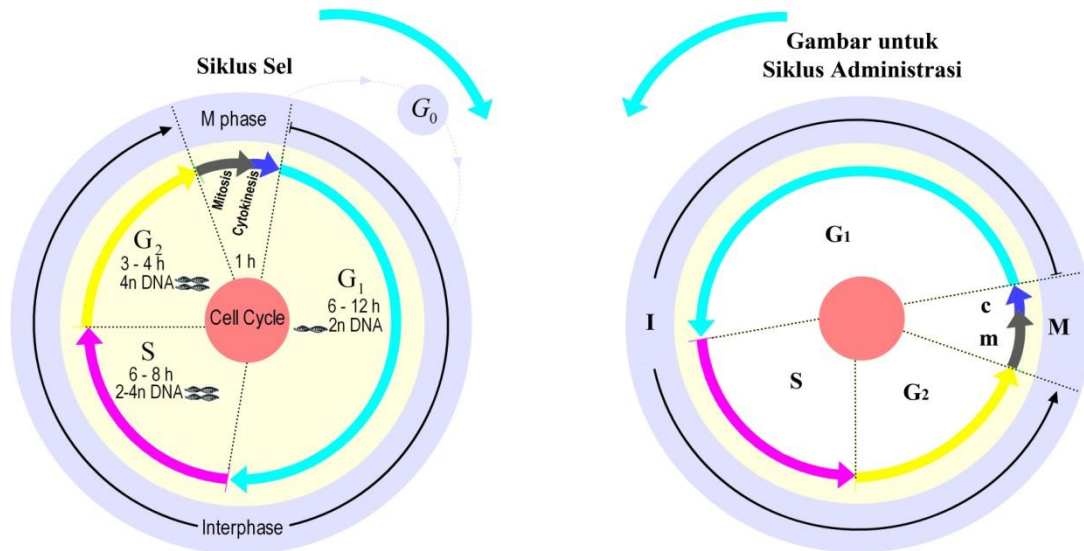
Sumber gambar: http://users.minet.uni-jena.de. 2009. System Biology of The Cell Cycle. University Jena, German. Warna gambar siklus sel diolah oleh Levri Ardiansyah (2016) berdasarkan Hughes, Arthur. 1952. The Mitotic Cycle: The Cytoplasm and Nucleus during Interphase and Mitosis. London: Butterworths Scientific Publications.

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cell cycle checkpoint yang terdiri dari 3 *checkpoint* yaitu G1 adalah *start checkpoint,* G2 adalah M DNA *checkpoint* dan ketiga adalah *metaphase checkpoint.* Fungsi *checkpoint* ini adalah untuk menjamin bahwa DNA berduplikasi dengan akurat dan separasi kromosom terjadi dengan benar, tujuannya agar kerusakan DNA dapat terdeteksi.

Warna pada siklus sel memang telah ditentukan yaitu biru, ungu, merah muda, abu-abu dan kuning. Ketentuan warna ini bersumber pada Hughes (1952:49) dalam bukunya berjudul '*The Mitotic Cycle: The Cytoplasm and Nucleus during Interphase and Mitosis*' yang dapat dibaca pada gambar berikut:
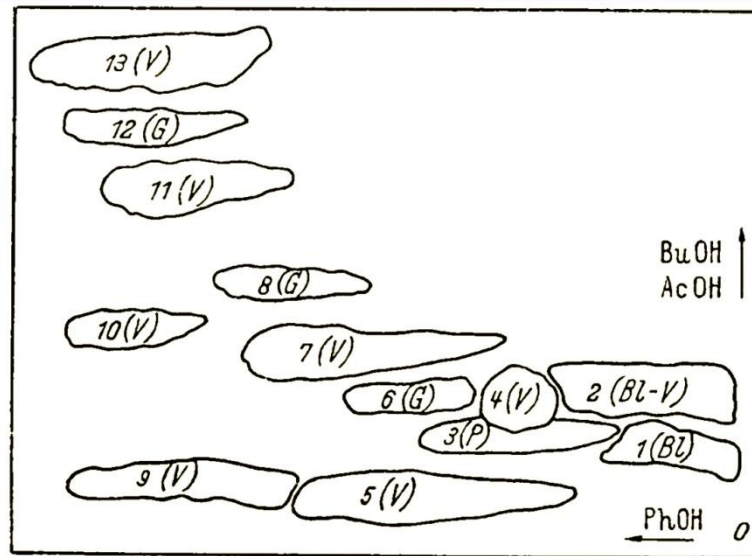
***Figure* 16** Paper chromatogram of acid hydrolysate of the sap of the oocyte nucleus of *Xenopus laevis*. (1) aspartic acid; (2) glutamic acid; (3) glycine; (4) serine; (5) lysine; (6) threonine; (7) alanine; (8) tyrosine; (9) arginine (histidine, if present); (10) proline; (11) valine; (12) phenylalanine; (13) leucine and isoleucine. The colour differentiation indicated by letters in parenthesis (Bl, blue; V, violet; P, pink; G, grey; Y, yellow) was produced by 5% collidine in the ninhydrin spray. From BROWN *et alii*[131] (*By courtesy, Nature*).

Sumber: Hughes, Arthur. 1952:49. The Mitotic Cycle: The Cytoplasm and Nucleus during Interphase and Mitosis. London: Butterworths Scientific Publications. Gambar dibuat oleh Levri Ardiansyah (2016).

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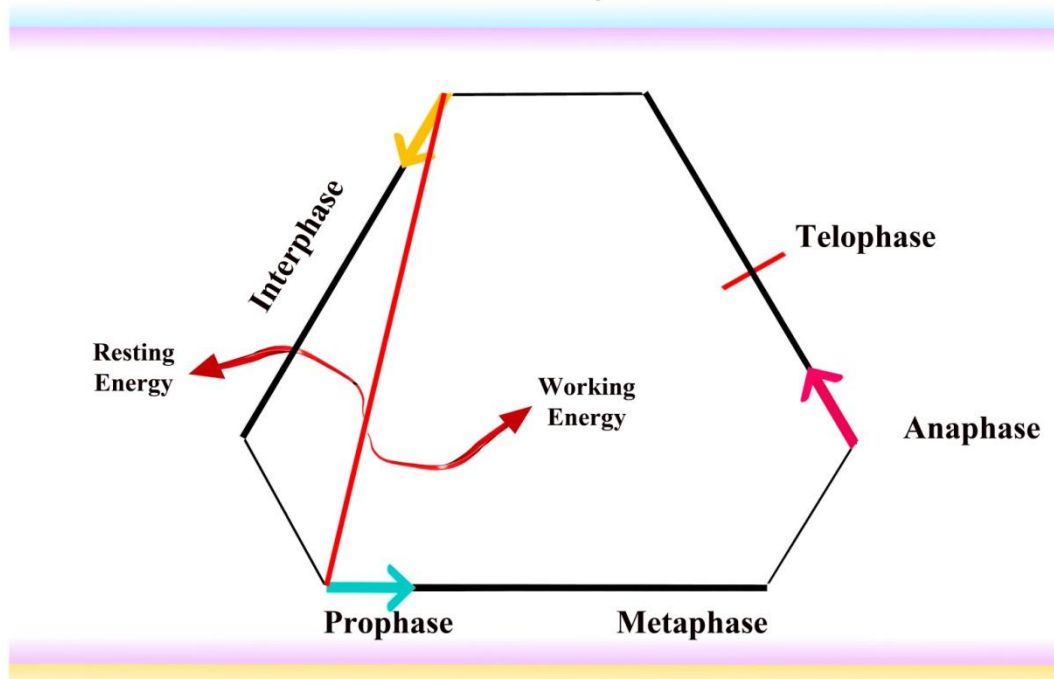
Mitotic Cycle

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Diagram Ternary

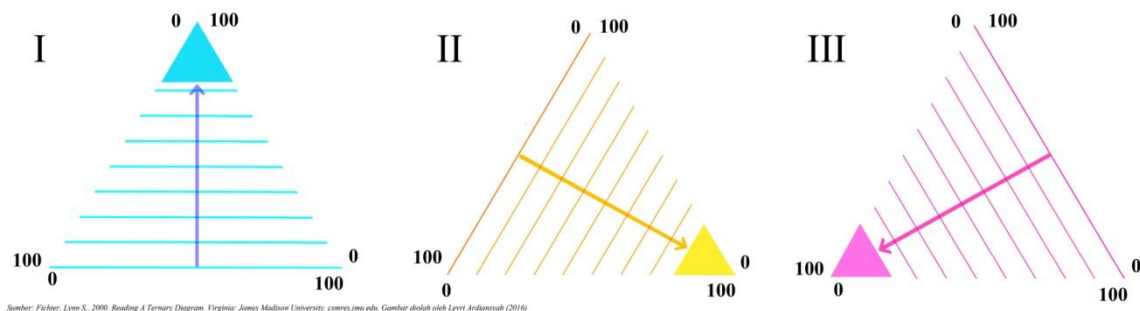
Diagram Ternary ternyata juga dirumuskan sebagai hasil pelajaran dari apa yang telah disajikan alam yaitu komposisi batu pasir (*sandstone*) yang terdiri dari *quartz, feldspar* dan *lithic.*

Dalam membaca segitiga, kami berterima kasih kepada Pythagoras dan untuk membaca segitiga komposisi kami gunakan cara para ahli geologi membaca diagram Ternary dengan prinsip-prinsip seperti ini:

1. Segitiga terdiri dari tiga puncak (*three vertices*) yaitu A, B dan C. Pada gambar ini puncak A tampak pada ujung atas, puncak B pada sudut kiri bawah dan puncak C pada sudut kanan bawah. Penggambaran puncak sebagai atas dan bawah hanya cara untuk memudahkan pemahaman saja, karena pada umumnya kita memahami puncak sebagai *the highest point* atau *climax* yang adanya di atas.
2. Arah gerak adalah dari kiri ke kanan seperti tampak pada gambar. Pergerakan dari A ke B membentuk garis AB yang merupakan *sideline* yaitu Garis Tepi B; arah gerak selanjutnya dari B ke C membentuk garis BC yang merupakan Garis Tepi dan terakhir adalah arah gerak dari C ke A membentuk garis CA yang merupakan Garis Tepi A;
3. Setiap puncak adalah variabel bebas yang mempengaruhi satu sama lain. Setiap variabel tidak independen satu sama lainnya (*any one variable is not independent of the others*), sehingga untuk menemukan variabel yang ketiga, hanya membutuhkan 2 variabel saja. Dalam statistik, konsep ini

dikenal sebagai *degrees of freedom* karena cirinya yang dapat bergerak bebas dalam sistem dinamik (*the number of independent ways by which a dynamic system can move*) tanpa melanggar batas-batas yang telah ditentukan. *Degrees of freedom* ini menunjukan lokasi dan posisi yaitu lokasi koordinat dan posisi dalam sistem (*independent coordinates that can specify the position of the system completely*).

4. Dalam *ternary plot*, proporsi ketiga variabel ABC adalah konstan (K) yang ditunjukan oleh persentase dari 0 hingga 100. K = A + B + C atau A = K - (B + C).

Sumber: Fichter, Lynn S.. 2000. Reading A Ternary Diagram. Virginia: James Madison University. csmres.jmu.edu. Gambar diolah oleh Levri Ardiansyah (2016)

5. Garis Tepi yang mengandung persentase itu dibaca sebagai Skala, yaitu Skala A yang berada pada Garis Tepi A, Skala B yang berada pada Garis Tepi B dan Skala C yang berada pada Garis Tepi C. Para ilmuwan geologi membaca garis pada diagram Ternary sebagai skala yang memiliki nilai angka dari 0 hingga 100. Bagi kami, untuk memudahkan pemahaman maka di awal ini kami gunakan istilah garis tepi dengan tetap mencantumkan nilai angka dari 0 hingga 100 meski Ilmu Administrasi tidak mudah untuk dinilai dengan angka.
6. Berdasarkan ke-5 prinsip ini dapat dipetik beberapa pelajaran diantaranya (1) kami mendapatkan warna garis tepi B yaitu kuning, warna garis tepi C adalah biru dan warna garis tepi A adalah merah muda, sehingga garis tepi pada Segitiga Administrasi yang kami buat berdasarkan siklus sel dapat direvisi menjadi gambar berikut:

a

Sumber: Hasil analisis penulis berdasarkan introspeksi Ilmu Administrasi. Gambar dibuat dan diolah oleh Levri Ardiansyah (2016).

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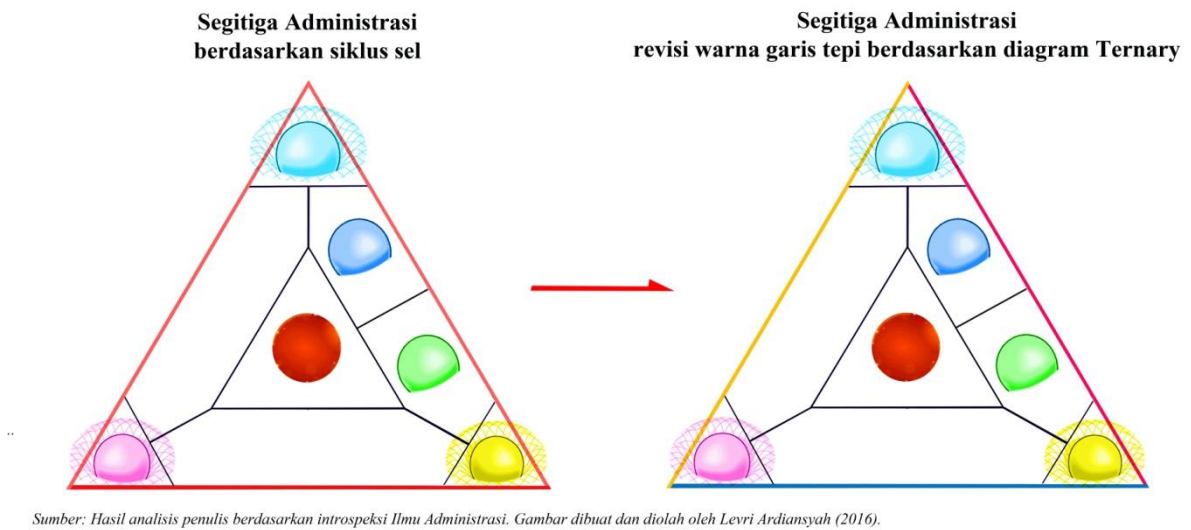
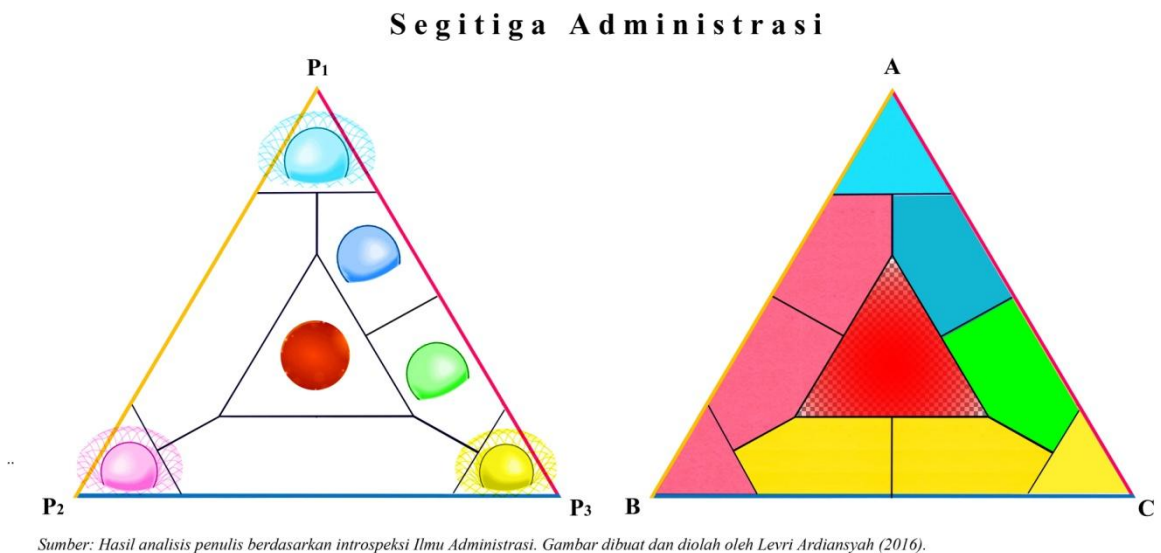
Segitiga Administrasi

P1 A

P2 P3 B C

Sumber: Hasil analisis penulis berdasarkan introspeksi Ilmu Administrasi. Gambar dibuat dan diolah oleh Levri Ardiansyah (2016).

Mengapa pada garis tepi ungu menjadi terdapat 2 bagian baru dan begitu juga pada garis tepi biru? Pertimbangan utamanya adalah karena segitiga ini merupakan segitiga Pythagoras, sehingga mengikuti gambar segitiga Pythagoras sebagaimana dapat dilihat pada buku yang ditulis Rev G. Oliver (1875) berjudul *The Pythagorean Triangle: or The Science of Numbers* (1875) seperti ini:

Dengan demikian, jumlah poin yang semula ada 6 pada segitiga siklus sel, kini menjadi berjumlah 10.

a

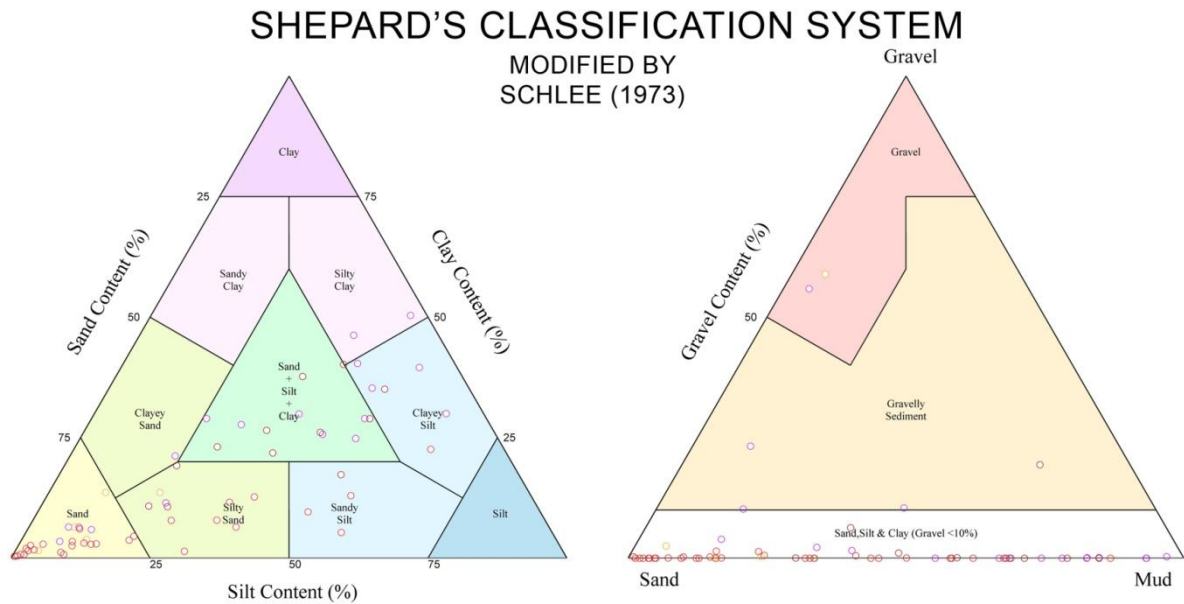
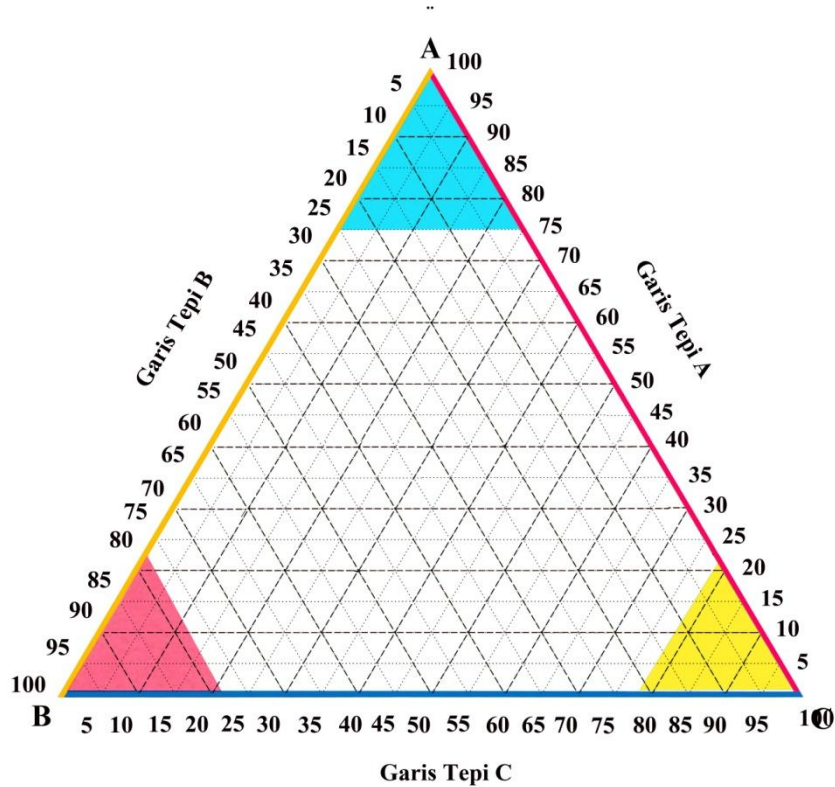
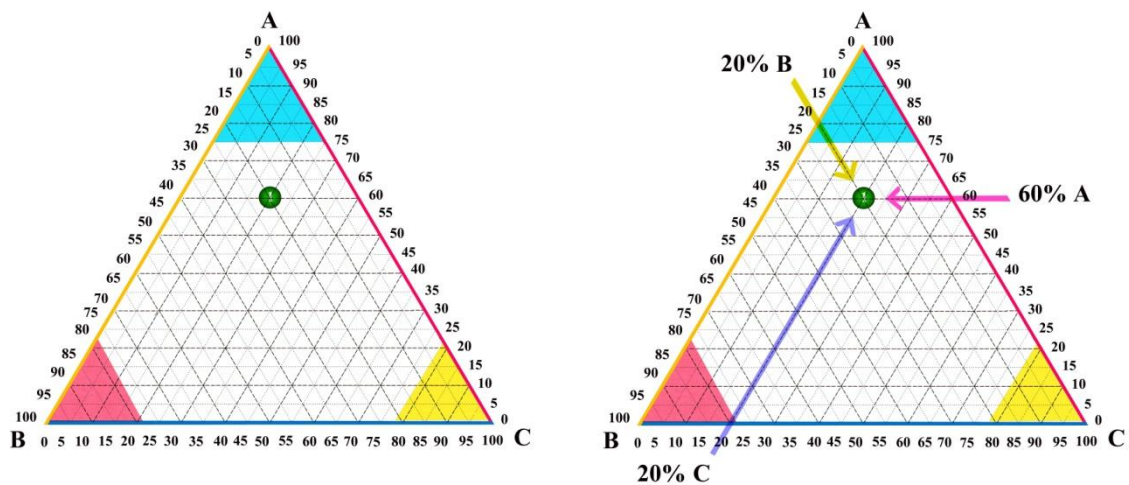
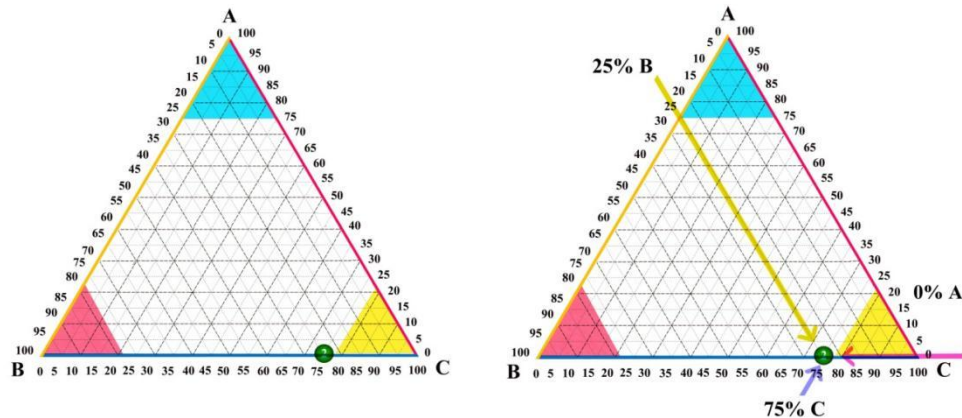
Segitiga ini menjadi mirip dengan diagram Shepard tentang sistem klasifikasi yang dimodifikasi oleh Schlee (1973).

a

Sumber: Fichter, Lynn S. 2000. Reading A Ternary Diagram. Virginia: James Madison University. csmres.jmu.edu. Gambar diolah oleh Levri Ardiansyah (2016).

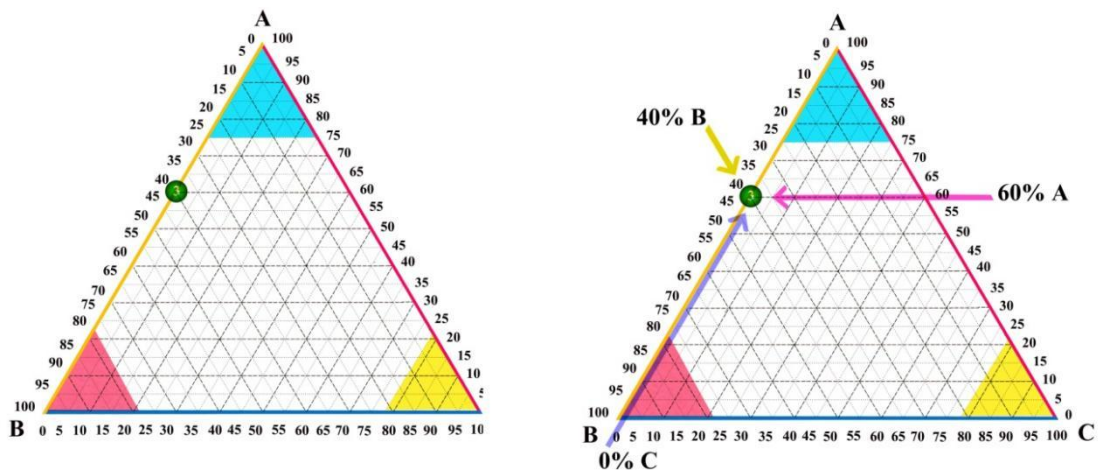
Diagram Ternary ini biasa digunakan dalam Geologi untuk menghitung secara statistik beberapa komponen dan komposisi *sedimentary rock* terutama *sandstone.* Metode penghitungan ini dikenal sebagai Gazzi-Dickinson Method yang kemudian digunakan sebagai dasar untuk membuat diagram Ternary. Gazzi dan Dickinson bekerja terpisah. Gazzi telah memulai mengerjakan metode ini dan mempublikasikannya pada tahun 1966 melalui jurnal yang berjudul "Le Arenarie del Flysch Sopracretaceo dell'Appennino Modenese: Correlazioni con il Flysch di Monghidoro". *Mineralogica e Petrografica Acta* 12:69 97. Dickinson dengan dibantu 3 mahasiswanya Raymond Ingersoll, Steven Graham, and Chris Suzcek melengkapi metode ini pada tahun 1970 di Stanford University dalam tulisannya berjudul “Interpreting detrital modes of graywacke and arkose*": Journal of Sedimentary Petrology, v. 40, p. 695–707* dan juga melalui tulisannya pada tahun 1975 yang berjudul "Plate tectonics and sandstone compositions": *American Association of Petroleum Geologist*, 63, 2164–2182 (*https://en.wikipedia.org/wiki/Gazzi-Dickinson_method).* Pada tahun 1975 itu pula, bersama 2 mahasiswanya yaitu Graham dan Ingersoll mempublikasikan tulisan berjudul "Himalayan-Bengal Model for Flysch Dispersal in Appalachian-Ouachita system", *Geological Society of America Bulletin*, vol. 86, pp. 273–286. Dalam perspektif Ilmu Administrasi, peristiwa terciptanya metode ini menunjukan adanya tindakan terpisah yang kooperatif. *The Gazzi-Dickinson Method came out of separate work.*

Bagaimana membaca komposisi pada diagram ternary? Ringkasnya perhatikan gambar berikut:

Sumber: Fichter, Lynn S. 2000. Reading A Ternary Diagram. Virginia: James Madison University. csmres.jmu.edu. Gambar diolah oleh Levri Ardiansyah (2016).

Pada gambar terdapat angka 1 dalam lingkaran hijau, yang lokasinya dipengaruhi oleh 3 variabel bebas A, B dan C. Hal ini berarti kita akan mengetahui 3 komposisi angka 1 yaitu berapa persen A, berapa persen B dan berapa persen B. Untuk mengetahui komposisi angka 1 yang dipengaruhi oleh variabel A, caranya adalah dengan menjadikan Garis Tepi A sebagai pedoman awal dalam membaca. Bayangkan dari Garis Tepi A ada garis yang bergerak lurus ke Garis Tepi B namun bertemu terlebih dahulu dengan lokasi angka 1. Awal garis lurus itu pada Garis Tepi A menunjukan skala A dengan persentase sebesar 60%. Dengan cara ini kita mengetahui bahwa komposisi angka 1 dipengaruhi oleh 60% A. Untuk mengetahui komposisi angka 1 yang dipengaruhi oleh variabel B, kita mulai dari Garis Tepi B yang bergerak ke arah Garis Tepi C hingga bertemu dengan lokasi angka 1. Awal garis lurus itu pada Garis Tepi B menunjukan angka 20% yang merupakan komposisi angka 1 sebesar 20% B. Selanjutnya untuk mengetahui komposisi angka 1 yang dipengaruhi oleh variabel C, kita mulai dari Garis Tepi C yang bergerak ke arah Garis Tepi A hingga bertemu terlebih dahulu dengan lokasi angka 1. Awal garis lurus itu pada Garis Tepi C menunjukan angka 20%. Dengan demikian komposisi angka 1 yang dipengaruhi variabel C adalah 20% C.

Contoh lainnya adalah komposisi angka 2 seperti ini:

Sumber: Fichter, Lynn S. 2000. Reading A Ternary Diagram. Virginia: James Madison University. csmres.jmu.edu. Gambar diolah oleh Levri Ardiansyah (2016).

Lokasi angka 2 terletak pada Garis Tepi C, tepatnya pada angka 75. Ini artinya komposisi angka 2 yang dipengaruhi variabel C adalah 75% C. Berapa persen pengaruh variabel B terhadap komposisi angka 2 dapat kita baca pada Garis Tepi B yang menunjukan angka 25 yaitu awal garis lurus pada Garis Tepi B yang bergerak ke arah Garis Tepi C. Dengan demikian, komposisi angka 2 yang dipengaruhi oleh variabel B adalah 20% B. Bagaimana dengan komposisi angka 2 yang dipengaruhi oleh variabel A? Tentu saja jawaban sederhananya adalah 0% A, karena A=K-(B+C) yaitu 100% - (75% + 25%). Cara baca untuk mengetahuinya adalah fokus pada Garis Tepi A yang ternyata untuk bertemu dengan lokasi angka 2, awal garis lurus pada Garis Tepi adalah 0, yang berarti 0% A.

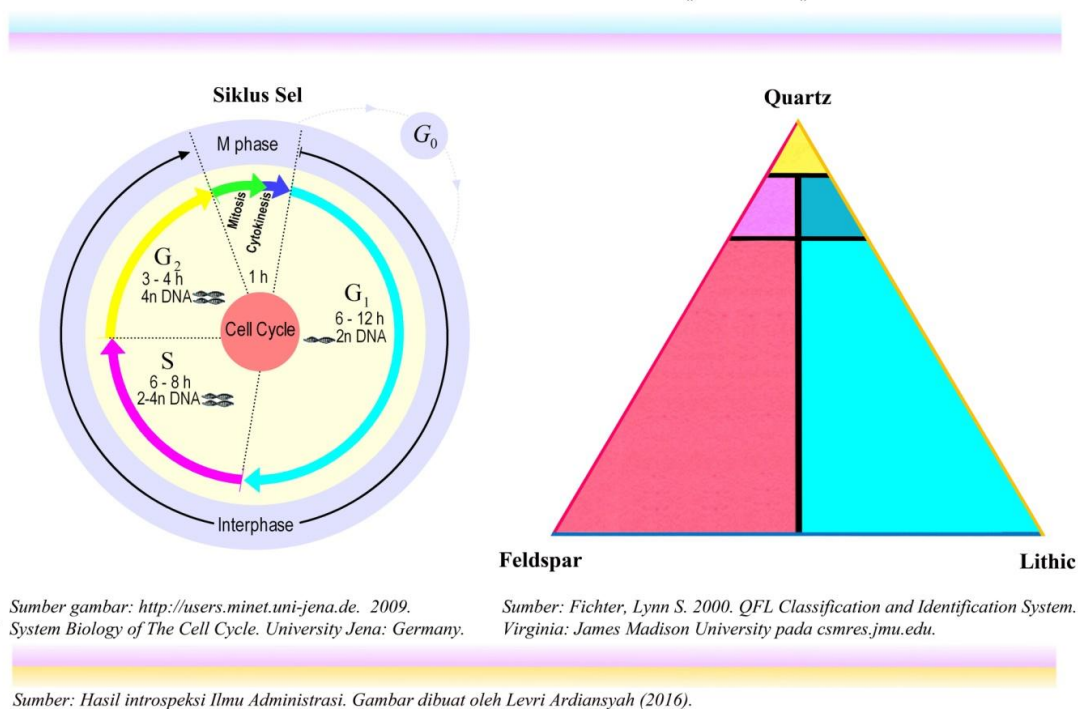
Satu contoh lagi seperti ini:

Sumber: Fichter, Lynn S. 2000. Reading A Ternary Diagram. Virginia: James Madison University. csmres.jmu.edu. Gambar diolah oleh Levri Ardiansyah (2016).

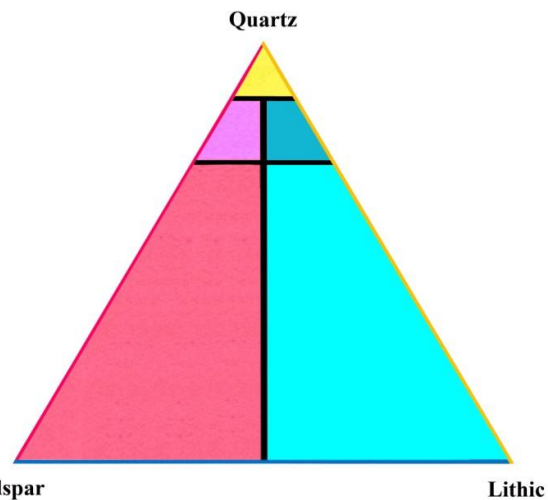
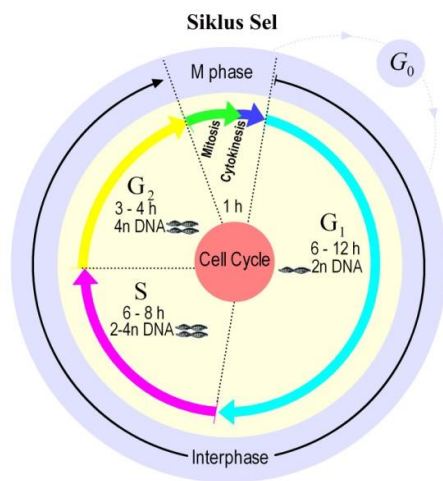
Pada contoh yang ketiga ini, lokasi angka 3 terletak pada Garis Tepi B yaitu pada angka 40. Komposisi angka 3 yang dipengaruhi oleh variabel B dengan demikian adalah 40% B. Dari Garis Tepi A menuju lokasi angka 3 pada Garis Tepi B ternyata berawal pada angka 60. Artinya komposisi angka 3 yang

dipengaruhi oleh variabel A adalah 60% A. Dengan demikian, dengan mudah kita mengetahui komposisi angka 3 yang dipengaruhi variabel C adalah 0% C.

Kemiripan Pola Diagram Ternary dengan Siklus Sel

Tampaknya terdapat kemiripan pola diagram Ternary dengan siklus sel seperti ini:

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Baik siklus sel maupun diagram Ternary terdiri dari 5 area yang ditunjukan melalui 5 warna yang 4 diantaranya sama. Jika gambar siklus sel kami sajikan dalam bentuk diagram seperti Ternary, maka hasilnya seperti ini:

a

Sumber gambar: http://users.minet.uni-jena.de. 2009. System Biology of The Cell Cycle. University Jena: Germany.

Sumber: Fichter, Lynn S. 2000. QFL Classification and Identification System. Virginia: James Madison University pada csmres.jmu.edu.

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Perbedaan mendasar antara gambar siklus sel dengan diagram Ternary terletak pada arah pergerakan yang ditunjukan oleh tanda panah. Siklus sel digambarkan bergerak dari kanan ke kiri, sedangkan diagram Ternary bergerak dari kiri ke kanan. Terhadap adanya perbedaan ini, di dalam merumuskan komposisi Ilmu Administrasi kami memilih mengikuti arah gerak diagram Ternary, menjadikan konsep-konsep pada siklus sel sebagai landasan untuk menganalisis substansi komposisi Ilmu Administrasi dan menyusun warna berdasarkan warna pada siklus sel. Oleh karena ini, diagram komposisi Ilmu Administrasi kami buat dengan cara membalik arah siklus sel menjadi kiri atas ke kanan bawah dan posisi G1 yang berwarna biru muda menjadi berada pada posisi atas, sehingga urutan siklus pada komposisi Ilmu Administrasi menjadi seakan-akan ada awalnya yaitu dari atas. Dengan demikian, kami dapat membuat diagram sebagai dasar penyusunan komposisi Ilmu Administrasi seperti ini:

a

Solid Geometry: Point and Lines

Penggunaan istilah poin (*point*) didasarkan pada pertimbangan bahwa ke-6 poin pada lingkaran siklus sel akan digambarkan sebagai segitiga, sehingga istilah-istilah pada segitiga menggunakan istilah yang berasal dari pencipta segitiga yaitu Pythagoras dalam buku yang ditulis oleh Rev G. Oliver (1875) berjudul *The Pythagorean Triangle: or The Science of Numbers* seperti ini:

CHAPTER I.

THE POINT.

MONAD, UNITY, OR THE NUMBER ONE.

"A POINT is enough to put all the schools in the world in a combustion. But what need has man to know that point, since the creation of such a small being is beyond his power? *A fortiori*, philosophy acts against probability when, from that point which absorbs and disconcerts all her meditations, she presumes to pass on to the generation of the world, or the ordering of God's decrees." —LA PLUCHE.

"The sciences may well compose
A noble structure, vast;
A point, a line, a superfice,
But solid is the last."
ANCIENT LECTURES OF MASONRY.

THE exalted ideas which were entertained by the ancient poets and philosophers respecting the mysterious properties of numbers, may be estimated from the superstitious uses to which they were made subservient in all countries, whether the inhabitants were savage or refined. The former saw that the number of his fingers ended at ten; and this constituted the amount of

C

36 *The Pythagorean Triangle.*

cessors; until the superstition became so firmly grafted in the human mind, that time and education have failed entirely to extinguish it. An examination into the mysterious properties of numbers has constituted the serious occupation of many a man of real talent in comparatively modern times. But the old philosophers embodied in their numeral system such excellent doctrines, and beautiful lessons of morality as have been deemed worthy of introduction into the science of Freemasonry for the edification of the brethren; and the absurd superstitions in which they were originally embodied may be forgiven, as being incidental to their imperfect and spurious religion, for the sake of the genius with which they were decorated and enriched.

Amongst these sages, the MONAD represented the throne of the Omnipotent Deity, placed in the centre of the empyrean, to indicate T.G.A.O.T.U., by whom all things were made and are preserved. This disposition was symbolised by the hierogram of a Point within a circle or equilateral triangle, to exemplify equally the unity of the divine essence, and His eternity, having neither beginning of years nor end of days. And this deduction appears perfectly reasonable, because the Monad or Point is the original and cause of the entire numeral system, as God is the cause of all things, being the only and great Creator on whom everything depends; for, if there were more all-powerful Beings than one, none would be independent, nor would all perfections be centred in

Sumber: Oliver, George. 2013. The Pythagorean Triangle: Or the Science of Numbers. London: Forgotten Books. (Original work published 1875). Gambar dibuat oleh Levri Ardiansyah (2016).

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Berdasarkan etimologi

a

point

point (n.)

c. 1200, "minute amount, single item in a whole; sharp end of a sword, etc.," a merger of two words, both ultimately from Latin pungere "to prick, pierce," related to pugnus "a fist" (see pugnacious). The Latin neuter past participle punctum was used as a noun, meaning "small hole made by pricking," subsequently extended to anything that looked like one, hence, "dot, particle," etc. This yielded Old French point "dot; smallest amount," which was borrowed in Middle English by c. 1300.
Meanwhile the Latin fem. past participle of pungere was puncta, which was used in Medieval Latin to mean "sharp tip," and became Old French pointe "point of a weapon, vanguard of an army," which also passed into English, early 14c.
The senses have merged in English, but remain distinct in French. Extended senses are from the notion of "minute, single, or separate items in an extended whole." Meaning "small mark, dot" in English is mid-14c. Meaning "distinguishing feature" is recorded from late 15c. Meaning "a unit of score in a game" is first recorded 1746. As a typeface unit (in Britain and U.S., one twelfth of a pica), it went into use in U.S. 1883. As a measure of weight for precious stones (one one-hundredth of a carat) it is recorded from 1931.
The point "the matter being discussed" is attested from late 14c.; meaning "sense, purpose, advantage" (usually in the negative, as in what's the point?) is first recorded 1903. Point of honor (1610s) translates French point d'honneur. Point of no return (1941) is originally aviators' term for the point in a flight "before which any engine failure requires an immediate turn around and return to the point of departure, and beyond which such return is no longer practical."

point (v.)

late 14c., "indicate with the finger;" c. 1400, "wound by stabbing; make pauses in reading a text; seal or fill openings or joints or between tiles," partly from Old French pointoier "to prick, stab, jab, mark," and also from point (n.).
Mid-15c. as "to stitch, mend." From late 15c. as "stitch, mend;" also "furnish (a garment) with tags or laces for fastening;" from late 15c. as "aim (something)." Related: Pointed; pointing. To point up "emphasize" is from 1934; to point out is from 1570s.

pointed (adj.)

c. 1300, "having a sharp end or ends," from point (n.). Meaning "having the quality of penetrating the feelings or mind" is from 1660s. Related: Pointedly; pointedness.

checkpoint (n.)

1940, from check (v.1) + point (n.). Originally an aviator's term for landforms or structures of known height against which the craft's altitude could be visually checked. The "vehicle stop" sense is recorded from 1950.

vector (n.)

"quantity having magnitude and direction," 1846; earlier "line joining a fixed point and a variable point," 1704, from Latin vector "one who carries or conveys, carrier" (also "one who rides"), agent noun from past participle stem of vehere "carry, convey" (see vehicle). Related: Vectorial.

Sumber: ONLINE ETYMOLOGY DICTIONARY

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point

terminal (n.)

"end point of a railway line," 1888, from terminal (adj.); sense of "device for communicating with a computer" is first recorded 1954. Earlier "final part of a word" (1831).

indicator (n.)

1660s, "that which indicates or points out," from Late Latin indicator, agent noun from indicare "to point out, show" (see indication). As a finger muscle, from 1690s. As a steam-cylinder's pressure gauge, 1839. As a device on a motor vehicle to signal intention to change direction, 1932.

node (n.)

early 15c., "a knot or lump," from Latin nodus "knot" (see net (n.)). Originally borrowed c. 1400 in Latin form, meaning "lump in the flesh." Meaning "point of intersection" (originally of planetary orbits with the ecliptic) first recorded 1660s.

juncture (n.)

late 14c., "place where two things are joined," from Latin iunctura "a joining, uniting, a joint," from iunctus, past participle of iungere "to join" (see jugular). Meaning "action of joining together" is from 1580s. Sense of "point in time" first recorded 1650s, probably from astrology.

edge (n.)

Old English ecg "corner, edge, point," also "sword" (also found in ecgplega, literally "edge play," ecghete, literally "edge hate," both used poetically for "battle"), from Proto-Germanic *agjo (cognates: Old Frisian egg "edge;" Old Saxon eggia "point, edge;" Middle Dutch egghe, Dutch eg; Old Norse egg, see egg (v.); Old High German ecka, German Eck "corner"), from PIE root *ak- "sharp, pointed" (cognates: Sanskrit asrih "edge," Latin acies, Greek akis "point;" see acrid).
Spelling development of Old English -cg to Middle English -gg to Modern English -dge represents a widespread shift in pronunciation. To get the edge on (someone) is U.S. colloquial, first recorded 1911. Edge city is from Joel Garreau's 1992 book of that name. Razor's edge as a perilous narrow path translates Greek epi xyrou akmes. To be on edge "excited or irritable" is from 1872; to have (one's) teeth on edge is from late 14c., though "It is not quite clear what is the precise notion originally expressed in this phrase" [OED].

top (n.2)

"toy that spins on a point," late Old English top, probably a special use of top (n.1), but the modern word is perhaps via Old French topet, which is from or influenced by a Germanic source akin to the root of English top (n.1). As a type of seashell, first recorded 1680s.

equinox (n.)

c. 1400, "point at which the sun crosses the earth's equator, making day and night of equal length everywhere," from Old French equinoce (12c.) or directly from Medieval Latin equinoxium "equality of night (and day)," from Latin aequinoctium, usually in plural, dies aequinoctii "the equinoxes," from aequus "equal" (see equal (adj.)) + nox (genitive noctis) "night" (see night). The Old English translation was efnniht. Related: Equinoctial.

Sumber: ONLINE ETYMOLOGY DICTIONARY

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Sponsored Words

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point

goal (n.) 1530s, "end point of a race," of uncertain origin. It appears once before this (as gol), in a poem from early 14c. and with an apparent sense of "boundary, limit." Perhaps from Old English *gal "obstacle, barrier," a word implied by gælan "to hinder" and also found in compounds (singal, widgal). That would make it a variant or figurative use of Middle English gale "a way, course." Also compare Old Norse geil "a narrow glen, a passage." Or from Old French gaule "long pole, stake," which is from Germanic. Sports sense of "place where the ball, etc. is put to score" is attested from 1540s. Figurative sense of "object of an effort" is from 1540s.

terminus (n.) 1550s, "goal, end, final point," from Latin terminus (plural termini) "end, boundary line," from PIE *ter-men-, from root *ter-, base of words meaning "peg, post, boundary, marker, goal" (cognates: Sanskrit tarati "passes over, crosses over," tarantah "sea;" Hittite tarmaizzi "he limits;" Greek terma "boundary, end, limit;" Gothic þairh, Old English þurh "through;" Old English þyrel "hole;" Old Norse þrömr "edge, chip, splinter").
In ancient Rome, Terminus was the name of the deity who presided over boundaries and landmarks, focus of the important Roman festival of Terminalia (held Feb. 23, the end of the old Roman year). Meaning "either end of a transportation line" is first recorded 1836.

appoint (v.) late 14c., "to decide, resolve; to arrange the time of (a meeting, etc.)," from Anglo-French appointer, Old French apointier "make ready, arrange, settle, place" (12c.), from apointer "duly, fitly," from phrase à point "to the point," from a- "to" (see ad-) + point "point," from Latin punctum (see point (n.)). The ground sense is "to come to a point (about some matter)," therefore "agree, settle." Meaning "put (someone) in charge" is early 15c. Related: Appointed; appointing.

Sumber: ONLINE ETYMOLOGY DICTIONARY

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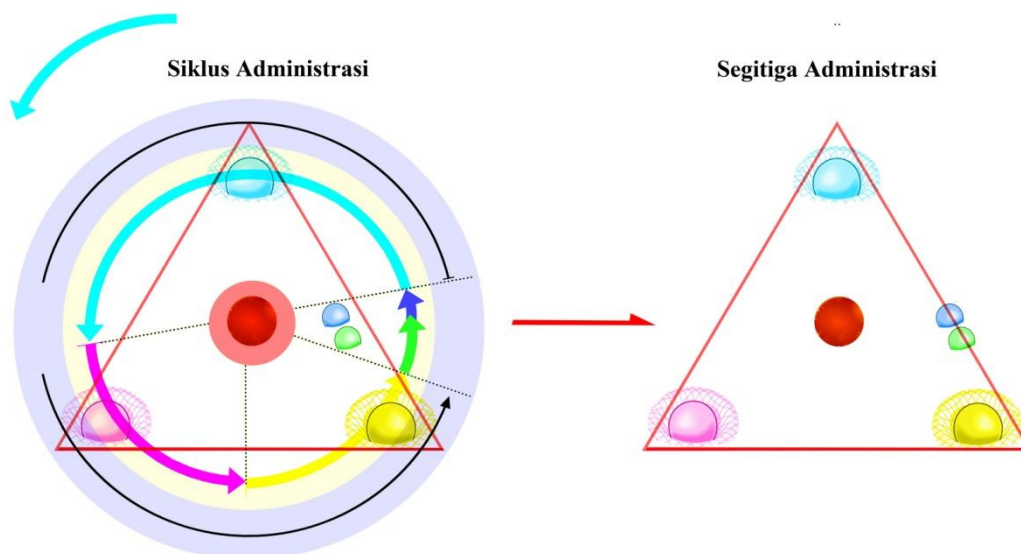
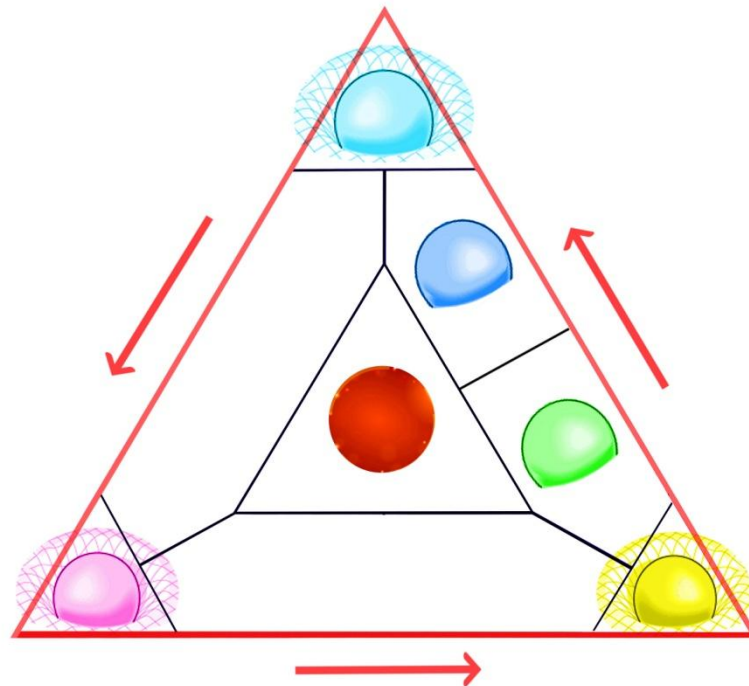
Dengan memandang keenam poin ini sebagai segitiga, maka tentu saja hanya terdapat 3 poin yaitu poin 1 (P1), poin 2 (P2) dan poin 3 (P3), sehingga segitiga yang terbentuk kami beri nama segitiga P1, P2 dan P3. P1 merupakan puncak segitiga yang pada gambar terlihat berada di atas, P2 juga merupakan puncak segitiga yang pada gambar terlihat pada bagian bawah arah kiri dan P3 juga merupakan puncak segitiga yang pada gambar terlihat pada bagian bawah arah kanan.

Sumber: Hasil analisis penulis berdasarkan introspeksi Ilmu Administrasi. Gambar dibuat dan diolah oleh Levri Ardiansyah (2016).

Dengan demikian, Segitiga Administrasi yang tersusun berdasarkan siklus sel adalah sebagaimana tergambar berikut ini:

S e g i t i g a   A d m i n i s t r a s i
berdasarkan Siklus Sel

Sumber: Hasil analisis penulis berdasarkan introspeksi Ilmu Administrasi. Gambar dibuat dan diolah oleh Levri Ardiansyah (2016).

4.1.1. *Scalar and Vector*

Membaca diagram Ternary ini berdasarkan Ilmu Fisika, ternyata arah pergerakan dari segitiga biru muda menuju segiitiga merah muda menunjukan bahwa pada segitiga ini terdapat perpindahan (*displacement*) yaitu jauh dekatnya perpindahan yang dinilai dengan besaran angka berikut arahnya. Berbeda dengan jarak (*distance*) yang hanya menunjukan nilai angka saja dan tidak mempunyai arah. Jarak merupakan besaran skalar sedangkan perpindahan merupakan besaran vektor. Bagi kita para dosen dan mahasiswa Ilmu Administrasi, mengetahui konsep tentang jarak dan perpindahan ini penting untuk memahami tentang apa itu *work* dalam perspektif Ilmu Fisika, yaitu *work* terjadi jika tindakan menyebabkan *displacement,* artinya terjadi perubahan arah dan posisi akibat tindakan (w*hen a force acts upon an object to cause a displacement of the object, it is said that* ***work*** *was done upon the object).*
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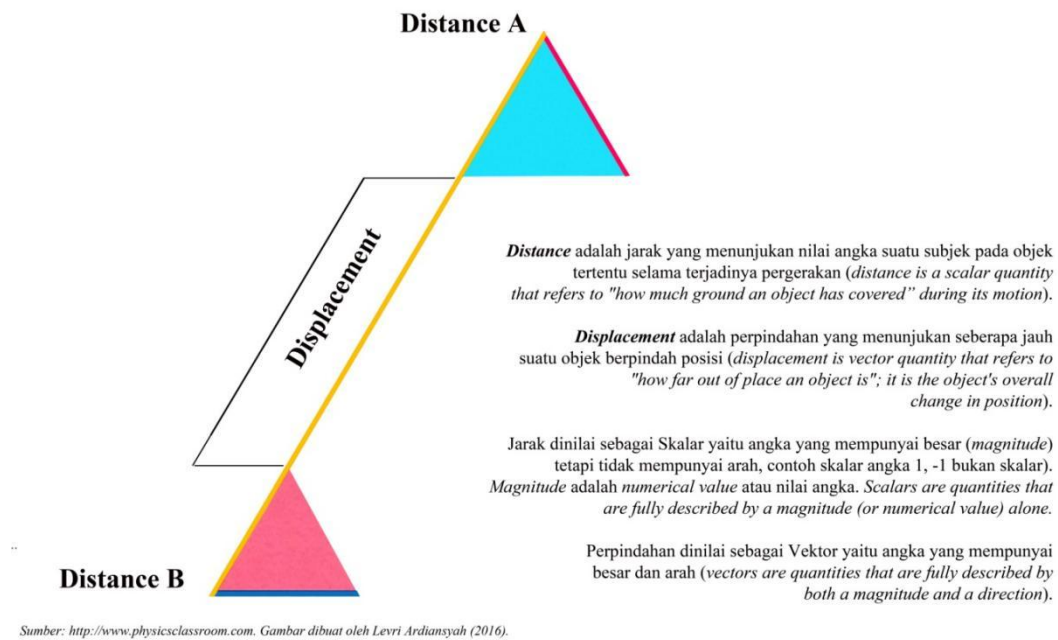
Sumber: http://www.physicsclassroom.com. Gambar dibuat oleh Levri Ardiansyah (2016).

Dalam Fisika, adanya arah merupakan penentu sekaligus pembeda antara *distance* dengan *displacement* sehingga kita menjadi tahu bahwa *displacement* berarti ada perpindahan, kecepatan, percepatan, gaya, momentum, berat dan medan listrik. Hal ini berarti pada *displacement* terdapat pergerakan maju dan mundur (*oscilating*), menjauh mendekat, juga besar kecil (*maximize and minimize*) bahkan hingga negatif. Sedangkan pada *distance* tidak ada angka negatif, tidak ada arah artinya statis hanya pada tempatnya. Umumnya *distance* menunjukan jarak, waktu, massa, suhu, energi, volume dan daya.

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7. Lines. Any two surfaces of *ABCD* meet in an edge. In the geometric solid the edges are called *lines*. We may think of the intersection of any two surfaces as a line.

A geometric line has one dimension only, length. Of course any line we may draw or engrave has breadth. Since over 20,000 parallel lines have been cut by a diamond point on a steel plate one inch long, the breadth of such lines is very minute, yet they give only an approximate idea of what is meant by a geometric line.

Sumber: Hawkes, Herbert E. 1920:4. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

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9. Magnitudes. A *magnitude* is anything which is measurable or which may be thought of as measurable.

Anything of which we may ask, How much? is a magnitude. Lines, surfaces, and solids are examples of magnitudes.

10. The geometric magnitudes generated by motion. If a point moves, it generates (describes or traces) a line; if a line moves (except along itself), it generates a surface; if a surface, such as a triangle or a square, moves (except along itself), it generates a solid.

Sumber: Hawkes, Herbert E. 1920:5. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

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11. Straight line. If a weight is suspended by a fine piano wire, the position taken by the wire is a good physical representation of a ***straight line.***

When the word *line* is used alone, usually a straight line is meant.

A straight line is considered as extending indefinitely in both directions.

A line beginning at a definite point and extending indefinitely in one direction only is a *ray*.

A part of a line lying between any two of its points is called a *line-segment*. Thus *AB* is a segment of *KR*.

K A B R

Sumber: Hawkes, Herbert E. 1920:5. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

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8. Points. Any three edges of *ABCD* which meet form what is called a *corner*. In the geometric solid this is called a *point*. We may think of the intersection of any *two* lines as a point.

Any small dot which we can make on paper, such as the period at the end of this sentence, has a measurable size. Such a point, however small, is only a crude representation of a geometric point.

Sumber: Hawkes, Herbert E. 1920:5. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

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12. Plane. A *plane* is a surface such that a straight line joining any two of its points lies wholly within the surface.

In finishing up concrete walks a workman often lays a straightedge across the surface in several directions to test its flatness; that is, to determine if it is a plane.

Sumber: Hawkes, Herbert E. 1920:5. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

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14. Boundaries. The *boundaries* of a geometric figure are the points, lines, curves, or surfaces which limit it.

Thus the boundaries of a line-segment are its two end points, the boundaries of a surface are lines, and the boundaries of a solid are surfaces.

Sumber: Hawkes, Herbert E. 1920:6. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

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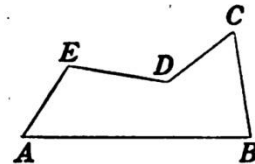
13. Geometric figures. A point, a line, a surface, a solid, or any combination of them is called a *geometric figure.*

A *plane figure* is any geometric figure which lies in a plane (flat) surface.

A triangle and a square are examples of plane figures.

Plane geometry is concerned with the study of plane figures only.

A *rectilinear figure* is a figure bounded by straight lines. *ABCDE* is a rectilinear figure.

Sumber: Hawkes, Herbert E. 1920:6. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

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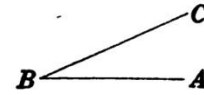
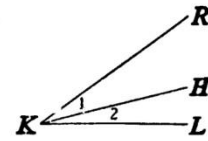
15. Angle. A plane *angle* (symbol ∠) is the figure formed by two rays which meet.

The two rays are called the *sides* of the angle and the point at which they meet is called the *vertex*.

Thus AB and CB are the sides of the angle ABC and B is the vertex.

C
B A

In naming an angle, the vertex letter is named between the other two, thus: the angle ABC or the angle CBA. It is also proper to name an angle by the vertex letter alone if no other angle has the same vertex. Thus we may call angle CBA angle B. In the adjacent figure, to speak of the angle K would be indefinite, as any one of three angles has the vertex K. Whenever two or more angles have the same vertex we must name each angle by three letters, or we can write a small letter or number within the angle near its vertex and name each angle by one character. Thus angle RKH may be called angle 1 and angle HKL may be called angle 2.

R
H
1 2
K L

Sumber: Hawkes, Herbert E. 1920:6. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

artinya, poin solid yang terbagi 2, meski pada garis lurus ungu ada 2 fungsi, ini tidak menunjukan division, hanya berfungsi sebagai pedoman bahwa garis lurus kuning dengan garis lurus biru muda juga terdiri dari 2 fungsi.

artinya 1 atau 2 orang yang berasosiasi, akan tercipta 2 administrasi, bukan satu administrasi,, pada segitiga dengan vertex K, bukan menjadi RKL, tetapi RKH dan HKL.

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16. Triangle. A *triangle* (symbol △) is a portion of a plane bounded by three straight lines.

Every triangle is regarded as having *six parts*: three sides and three angles.

Sumber: Hawkes, Herbert E. 1920:7. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

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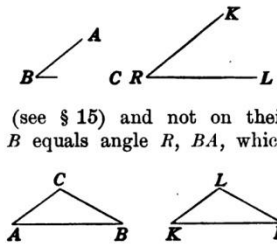
23. Equality of two geometric magnitudes. If two magnitudes of the same kind, like two angles or two distances, are measured and their measures are expressed in terms of a common unit by *the same number*, the two magnitudes are equal.

In geometry, however, it is often desirable to prove two magnitudes of the same kind (two angles, or two triangles, or two other plane figures) equal *without measuring them.* One method of doing this consists in proving that the boundaries of the two magnitudes may be made to coincide.

Thus the line-segment AB is equal to the line-segment KR provided that when A is placed on K, B at the same time can be placed on R.

Similarly, the angle ABC is equal to the angle KRL if B can be placed on R and BA upon RK, and if at the same time BC can be placed upon RL.

Note that the size of an angle depends on the size of the opening between its sides (see § 15) and not on their length. In showing that angle B equals angle R, BA, which is represented as shorter than RK, falls upon RK but does not *coincide* with it.

Lastly, the triangle ABC is equal to the triangle KRL if when A is placed on K, B at the same time may be placed on R and C on L. For then AB would coincide with KR, BC with RL, and CA with LK; that is, the boundaries of the triangle ABC would coincide with the boundaries of the triangle KRL. (See Postulate I.)

Sumber: Hawkes, Herbert E. 1920:8. Plane Geometry. Boston: The Etbeneum Press. Gambar dibuat oleh Levri Ardiansyah (2016).

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2. The space in which we live, although boundless and unlimited in extent, may be thought of as divided into parts. A physical solid occupies a limited portion of space. The portion of space occupied by a physical solid is called a **geometric solid.**

3. A geometric solid has length, breadth, and thickness. It may also be divided into parts. The boundary of a solid is called a **surface.**

4. A surface is no part of a solid. It has length and breadth, but no thickness. It may also be divided into parts. The boundary of a surface is called a **line.**

5. A line is no part of a surface. It has length only. It may also be divided into parts. The boundary or extremity of a line is called a **point.**

A point is no part of a line. It has neither length, nor breadth, nor thickness. It cannot be divided into parts. It is position only.

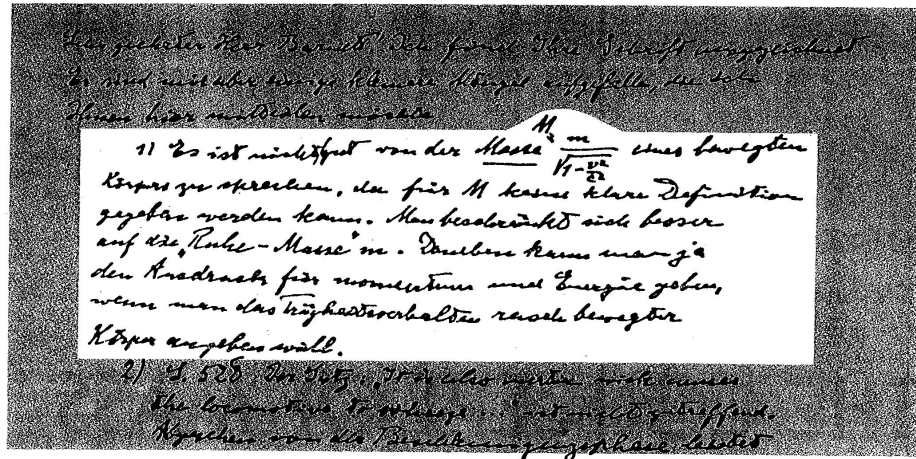
Sumber: Hart, C.A. & Feldman, Daniel D. 1911:2. Plane and Solid Geometry. New York: American Book Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Motion and Flux
Space, Time and Energy

Secara umum, ilmuwan fisikawan mendefinisikan energi sebagai kapasitas dan kemampuan untuk melakukan kerja (*energy is usually defined as the capacity or ability to perform work*). Sedangkan kerja didefinisikan sebagai pergerakan massa pada saat suatu kekuatan diaplikasikan pada massa itu (*work can be defined as the movement of mass when a force is applied to it*). Dengan perkataan lain, kerja terjadi ketika suatu kekuatan (*force*) menggerakan beberapa objek. Sederhananya, kerja memerlukan energi dan energilah yang memungkinkan kerja dapat terjadi. Massa dan ruang terdapat dalam materi (*matter is anything that has mass and takes up space).* Segala hal di alam semesta ini terdiri dari energi dan materi yang saling melengkapi tukar menukar (*two interchangeable properties*). Energi dapat dikonversi menjadi materi dan materi dapat dikonversi menjadi energi. Secara teoretis, energi eksis lebih dahulu sebelum materi terbentuk. Berdasarkan teori Big Bang, alam semesta terbentuk ketika energi yang tak terhingga tiba-tiba mengembang dan kemudian membentuk materi (*according to the Big Bang Theory, the universe began when an infinite amount of energy suddenly began to expand and form matter*). Singkatnya, energi merupakan kapasitas dan kemampuan untuk melakukan pergerakan (*movement*) massa yang terdapat di dalam materi.

Definisi tentang energi itu menyisakan beberapa pertanyaan yang tak terjawab tuntas hingga kini. Apakah yang dimaksud dengan *capacity?* Apa pula yang dimaksud dengan *ability to perform work*? *Work* sendiri apa? Mengapa fisikawan menggunakan perspektif sosial dalam mendefinisikan energi? Bukankah *capacity, ability,* dan *work* adalah kata-kata yang bermakna sosial dan multiinterpretasi? *Work* yang didefinisikan sebagai *movement of mass* juga menyisakan pertanyaan yang tak terjawab tuntas. Apakah yang dimaksud dengan *mass?* Apa pula yang dimaksud dengan *force* yang diaplikasikan pada *mass* itu? Semua kata-kata dalam definisi energi ternyata memerlukan definisi masing-masing. Bahkan definisi dari masing-masing kata itu menimbulkan kata yang juga perlu didefinisikan. Eugene Hecht (2006:40), seorang dosen pada *department of physics* pada Adelphi University dalam tulisannya berjudul "*There is No Rreally Good Definition of Mass"* menulis, "*Over the past century or so, textbooks have tended to define mass conceptually in either of two ways: One is simplistically as the "quantity of matter,"2 and the other is in terms of inertia. In the latter case, mass is a measure of an object's ability to resist changes in its motion"*. Hecht mengemukakan bahwa *motion* terkait dengan definisi tentang kecepatan (*speed*). Secara retoris, Hecht menulis,"*Hence, though the notion of speed (more precisely, average speed) can be specified in terms of distance traveled and time elapsed, "What is distance?" Any attempt to arrive at the meaning of "distance" will unavoidably bring us to the daunting question, "What is space?" And once you answer that, "What is time?"*

Einstein: ***No Clear Definition***

Bagaimana pandangan Einstein sebagai manusia yang menciptakan definisi E = mc^2? Ternyata Einstein sendiri mengakui bahwa tidak ada definisi yang jelas tentang apa yang dimaksud dengan *mass.* "*No clear definition can be given*" tulis Einstein dalam suratnya kepada Lincoln Barnett, 19 Juni 1948. Inilah surat Einstein itu:

Letter from Albert Einstein to Lincoln Barnett, 19 June 1948. Einstein wrote in German; the letter was typed and sent in English. The highlighted passage in this excerpt says: "It is not good to introduce the concept of the *mass* $M = m/(1 - v^2/c^2)^{1/2}$ of a moving body for which no clear definition can be given. It is better to introduce no other mass concept than the 'rest mass' *m*. Instead of introducing *M* it is better to mention the expression for the momentum and energy of a body in motion." (Reprinted by permission of the Hebrew University of Jerusalem, Israel.)

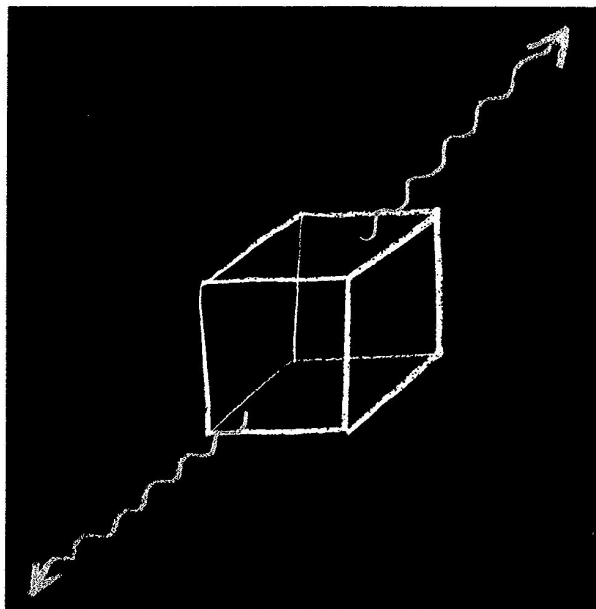
Lev B. Okun (1989: 32), seorang fisikawan berkebangsaan Rusia, memunculkan surat Einstein itu dalam tulisannya yang berjudul "*The Concept of Mass*". Lev B Okun (1989: 31) menjelaskan,"*According to this terminology the body at rest has a "proper mass" or "rest mass"* $\mathbf{m_0}$ *whereas a body moving with velocity* $\mathbf{v}$ *as "relativistic mass" or "mass"* $\mathbf{m}$*, given by*:

$$m = \frac{E}{c^2} = \frac{m_0}{\sqrt{1 - v^2/c^2}}$$

Berdasarkan tulisan Lev B. Okun, kita menjadi tahu bahwa ternyata:

1. Einstein mendefinisikan energi diilhami oleh tubuh manusia, yaitu (1) tubuh yang beristirahat (*the body at rest)* dan (2) tubuh yang bergerak (*moving body*). Dalam perspektif *biological psychology* seperti yang ditulis Kalat, *the body at rest* itu adalah tubuh yang tidur (*sleeping body*).
2. Sebelum mempublikasikan definisinya tentang energi, E = mc^2Einstein telah membaca dan mempelajari definisi energi yang dikemukakan Henry Poincare (1900), 6 tahun sebelum Einstein mempublikasikan definisinya itu. Henry Poincare mendefinisikan energi dalam konteks sebagai *a pulse of light* atau *a wave of train* dalam kaitannya dengan momentum (p).

Merunut tulisan Henry Poincare, p = E/c dengan p juga sama dengan mv (m adalah *mass* dan v adalah *velocity*). Jauh sebelum Henry Pointer, pada tahun 1881 ide bahwa *mass* meningkat dengan kecepatan (*velocity*) telah dikemukakan oleh J.J. Thomson saat dia menemukan *the kinetic energy.* Sayangnya, baik Henry Poincare maupun J.J. Thomson tidak terkenal kala itu karena tidak terpublikasi secara luas, sehingga Einstein adalah manusia yang menjadi terkenal dengan teorinya $E = mc^2$. Stephen Hawking (1988) menegaskan hal ini pada halaman pertama bukunya yang berjudul "*A Brief History of Time"*. Stephen Hawking menulis, "*In the end, however, I did put it one equation, Einstein's famous equation E = mc²*".

3. Einstein mempublikasikan teorinya 2 kali, pertama pada tahun 1905 dan kedua pada tahun 1906. Pada publikasi yang pertama tahun 1905, Einstein merumuskan: $E_0 = \Delta mc^2$(dengan E_0 sebagai *energy of the body at rest*). Einstein kemudian merevisinya, dan pada tahun 1906 Einstein merumuskan $E = mc^2$ (dengan E sebagai *the total energy*dan c sebagai kecepatan cahaya yang merupakan kecepatan gelombang elektro magnetic yang tercepat yaitu: 299.792.5 Km/detik). Einstein berpendapat bahwa pada tubuh yang beristirahat terdapat energi E_0 yang berupa *two light wave in opposite directions.* Perhatikan gambar berikut yang dikemukakan oleh Lev B. Okun :

***Gedanken* experiment** that Einstein described[7] in 1905. A body at rest with rest energy E_0 emits two equal pulses of light in opposite directions. Applying conservation of energy to the process in stationary and slowly moving reference frames leads to the equation $\Delta E_0 = \Delta mc^2$.

Dalam penelusuran yang saya lakukan tentang sejarah terciptanya definisi energi, saya berkesimpulan bahwa energi merupakan misteri yang menggerakan (*moving mystery*) segala sesuatu. Sebenarnya ilmuwan fisika tidak dapat mendefinisikan energi secara pasti, dan hingga kini energi merupakan misteri yang kita mengerti tapi tak terjawab. Tetapi para ilmuwan fisika tentu tidak mau mendefinisikan energi sebagai misteri untuk kemudian diajarkan kepada mahasiswa, meski itulah *the truth.* Dalam *American Journal of Physics,* Carl Adler (1987) pernah menulis artikel berjudul "*Does Mass Depend on Velocity, Dad?"* Jawaban yang diberikan Adler pada anaknya adalah "*No ! Well, yes ...."* and *"actually, No, but don't tell your teacher".*

Kesimpulannya, *mass* dan energi adalah misteri yang kita pahami seperti ini: *mass* merupakan *the expression for the momentum and energy of a body in motion.* Inilah bentuk kebijaksanaan Einstein menyikapi misteri ini seperti yang dia tulis kepada Lincoln Barnett:

> **It is not good to introduce the concept of the *mass* $M = m/(1 - v^2/c^2)^{1/2}$ of a moving body for which no clear definition can be given. It is better to introduce no other mass concept than the "rest mass" *m*. Instead of introducing *M* it is better to mention the expression for the momentum and energy of a body in motion.**

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Bentuk-Bentuk Energi

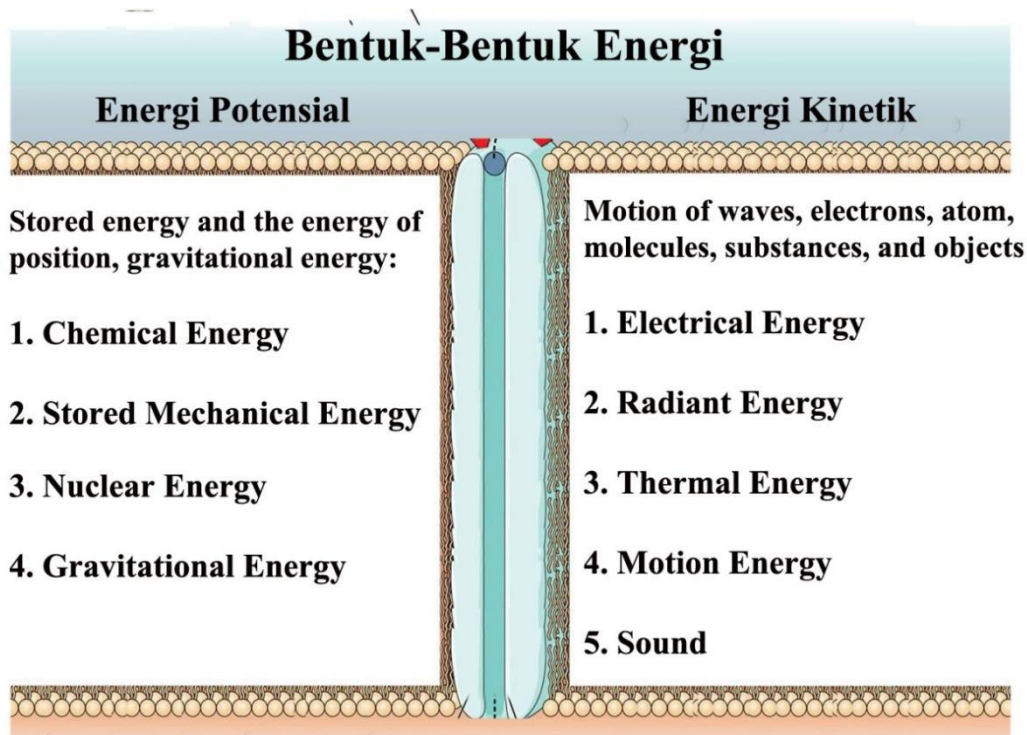
Energi Potensial

Stored energy and the energy of position, gravitational energy:

1. Chemical Energy
2. Stored Mechanical Energy
3. Nuclear Energy
4. Gravitational Energy

Energi Kinetik

Motion of waves, electrons, atom, molecules, substances, and objects

1. Electrical Energy
2. Radiant Energy
3. Thermal Energy
4. Motion Energy
5. Sound

Energi dapat ditransper dari satu sistem ke sistem lainnya. Sistem yang dimaksud disini adalah kumpulan objek yang ditata ke dalam organisasi yang lebih besar atau ditempatkan dengan cara-cara tertentu sehingga sub sistem tergabung menjadi sistem (*a collection of objects organized into a whole - or, to put it another way).* Energi yang ditransfer dari satu sistem ke sistem lain sederhananya merupakan *moving a mass* dari satu sistem ke sistem lain. Pada saat energi ditransfer dari satu sistem ke sistem lain dengan cara-cara tertentu, sistem kedua akan berubah sebagai akibat dari adanya aktivitas kerja yang diterimanya. Contoh padnyaa waktu memanaskan air dalam periuk, energi ditransfer dari periuk yang panas ke air, sehingga menyebabkan molekul air bergerak lebih cepat.Transfer energi juga dapat terjadi melalui kontak langsung. Contoh, energi yang dihasilkan dari gerakan mengayunkan pemukul baseball dapat ditransfer langsung ke baseball saat pemukul itu menyentuh baseball. Energi dibutuhkan untuk menggerakan segala sesuatu di alam (*in order to move anything in nature*). Energi yang dihasilkan dari pembakaran bahan bakar minyak akan menggerakan mobil. Energi yang dihasilkan dari proses sel otot menghancurkan nutrient menyebabkan otot dapat bergerak.

Thermal energy merupakan energi internal yang terdapat didalam sistem sebagai hasil dari temperatur pada sistem itu (*the internal energy of a system as a result of its temperature*). Mechanical energy adalah energi yang terdapat pada suatu objek sebagai hasil dari gerak atau karena lokasinya (*the energy of an object as a result of its location or motion*). Contohnya adalah air yang ditahan dengan dam atau bendungan. Suatu bentuk energi dapat ditransfer menjadi bentuk energi lainnya, contohnya air yang mengalir melalui dam memiliki *energy of motion*, dan energi gerak itu dapat digunakan untuk menghasilkan energi listrik.

Dalam konteks terjadinya *action,* adanya konsep tentang *moving body* yang diperkenalkan oleh Albert Einstein, menggugah saya berpikir bahwa *action* juga dapat kita beri batasan sebagai *moving record,* atau tepatnya sebagai *moving* REC. Dalam bahasa keseharian, konsep ini lebih mudah dipahami jika kita eja *action is moving meaning* atau makna bergerak. Disamping itu, konsep *moving body* dan *resting body*-nya Einstein dapat juga kita terapkan pada otak yaitu *resting brain* dan *moving brain. Resting brain* yang bekerja menjadi *moving brain,* yang menghasilkan tindakan dan lama kelamaan terbentuk kebiasaan. Kebiasaan ini kembali menjadi *resting brain* karena otak tidak perlu lagi bekerja untuk *stimuli* yang telah menjadi kebiasaan. Dengan demikian, habit adalah *u-turn to resting brain.* Dalam kalimat mudahnya, semakin terampil semakin tidak menggunakan otak. Berbeda dengan tidur, yang justru membuat *resting brain* menjadi *moving brain,* karena dalam kondisi tidur, otak justru tetap bekerja. Oleh karena ini tidur adalah kebutuhan manusia. *Sleep is moving brain,* bukanlah istirahat seperti yang kita pahami selama ini.
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Bahwa energi tidak dapat diciptakan dan tidak dapat dihancurkan. Energi dan materi hanya berubah dari bentuk yang satu menjadi bentuk lain (*changing from one form to another*). Contohnya pada saat membakar kayu. Kayu memiliki *chemical potential energy,* yaitu *stored energy* in the bonds that hold the chemicals together. *Stored energy* ini dilepaskan dalam bentuk panas dan cahaya pada saat kayu dibakar. Begitu juga materi yang terdapat di dalam kayu, akan ditransormasi menjadi materi dalam bentuk lain seperti debu. Jadi energi yang dihasilkan dari pembakaran kayu bukan diciptakan dari energi lain melainkan berasal dari energi yang tersimpan di dalam kayu (*comes from the energy that is stored in the wood*).

Adanya konsep tentang *distance and displacement* ini penting dalam perumusan komposisi yaitu pertama, terdapat area *distance* yang statis, tidak mempunyai arah dan tidak negatif, sehingga dalam komposisi Ilmu Administrasi area ini adalah area bagi *belief, fundamental purpose, great subject* maupun *general conception.* Kedua, terdapat area *displacement* yang dinamis dan merupakan area kerja (*working area*) sehingga dalam komposisi Ilmu Administrasi berarti adanya area bagi *working concepts* yang menunjukan kata kerja. Oleh karena ini, *working area* ini merupakan *supporting area* yang menjadikan area *distance* yang statis menjadi dinamis, hidup dan bekerja.

Diagram Komposisi Ilmu Administrasi

Dengan demikian dapat disimpulkan bahwa dalam merumuskan komposisi Ilmu Administrasi terdapat (1) 3 area yang merupakan tempat bagi *great subject, general conception* maupun *concept;* (2) 3 area yang merupakan tempat bagi *working concepts* yang bekerja menjalankan fungsi *supporting,* baik secara maksimal ataupun minimal; dan (3) area yang terpengaruh dengan adanya *distance* dan *displacement* ini yaitu area bagi Ilmu Administrasi yang berada ditengah segitiga. Area bagi Ilmu Administrasi ini merupakan area *great subject,* sehingga pada ketiga area *distance* tidak lagi terkandung *great subject.* Ketiga prinsip ini dapat digambarkan seperti ini:

Great subject berada ditengah segitiga dalam area biru karena *great subject* merupakan inti dari Ilmu Administrasi yang membedakan secara mendasar dengan ilmu-ilmu lainnya.
Fundamental purpose berada dalam area biru muda A pada posisi di atas untuk menjadi pedoman mengawali siklus dengan tujuan yang mendasar.
General conception berada pada area merah muda B pada posisi puncak kiri karena merupakan konsep untuk mencapai tujuan. Artinya *fundamental purposes* diwujudkan melalui proses kerja untuk memperjelas *general conception.*

Belief berada dalam area kuning C pada posisi puncak kanan karena fase A merupakan fase yang menguras banyak energi sehingga memerlukan dasar keyakinan yang kuat untuk menempuhnya.

Terdapat 2 *practical subject* untuk menunjukan adanya 2 perubahan baik itu perubahan arah yang mendekat atau menjauh, perubahan gerak yang maksimal atau minimal dan perubahan frekuensi yang menggetarkan atau cenderung diam.

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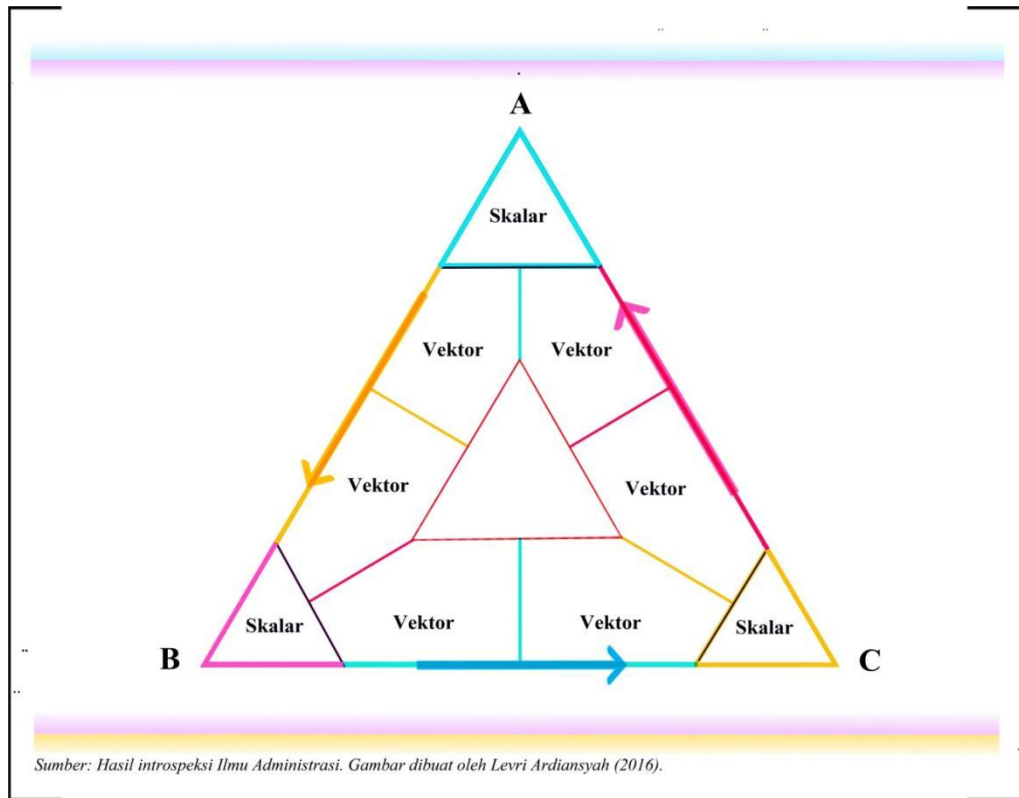
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

a

Jika berdasarkan siklus sel, maka Segitiga Administrasi terdiri dari 3 fase seperti ini:

Poin ideal merupakan *ideal way of thinking* atau dalam *principles of mechanics,* Profesor John L. Synge memaknainya sebagai '*Mathematical way'* (Singe, 1949:3-4).

PRINCIPLES *of* MECHANICS

BY JOHN L. SYNGE

AND BYRON A. GRIFFITH

SECOND EDITION

NEW YORK TORONTO LONDON
McGRAW-HILL BOOK COMPANY, INC.
1949

The two ways of thinking.

What the student of mechanics requires more than anything else is the development of a certain point of view which is difficult to describe in a few words. Since the reader is expected to have a fair knowledge of geometry, it will be helpful to consider the ways in which we think about that subject.

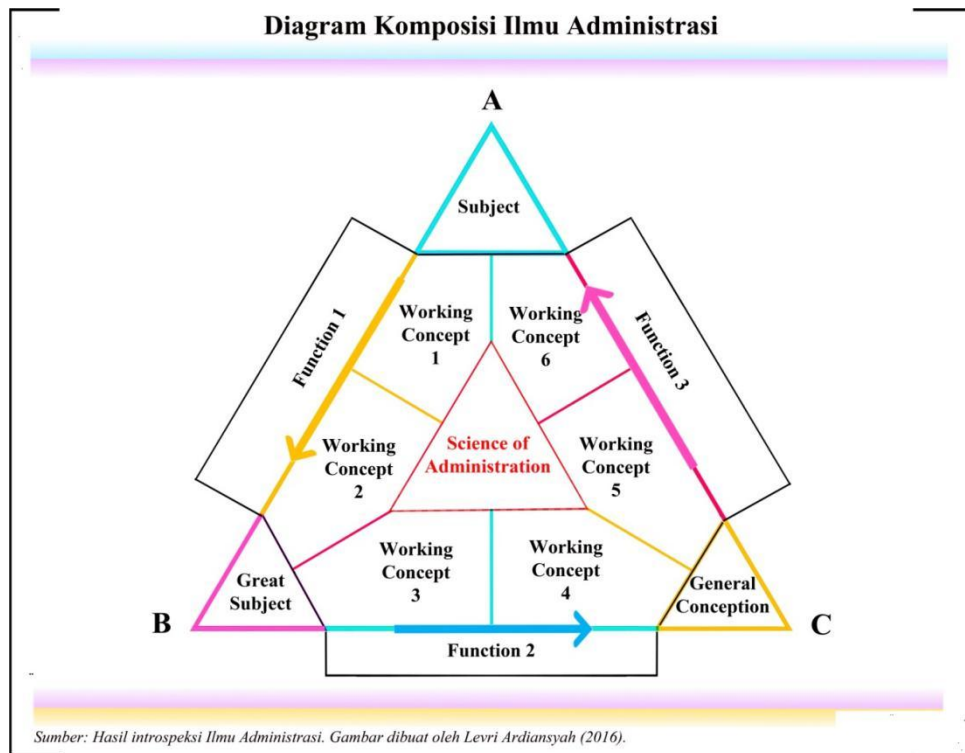
Every student of geometry learns to think in two ways. First, there is the *physical* way, in which a point is a small dot on a sheet of paper, a straight line a mark made by drawing a sharp pencil along a straight edge, a circle a mark made by a pair of compasses, and so on. Secondly, there is the ideal or

3

4 *PLANE MECHANICS* [SEC. 1.1

mathematical way, in which a point is no longer a dot on paper, but an ideal thing which the dot serves only to suggest. Anyone who uses geometry has both these ways of thinking at his disposal, switching from one to the other without confusion. The engineer and the physicist generally think in the physical way, but when there is a theorem to be proved they subconsciously switch to the mathematical way. On the other hand the mathematician will think primarily in the mathematical way, but he will change to the physical way when he wants to aid his thought with a diagram.

Sumber: Synge, John L. 1949:3-4. Principles of Mechanics. New York: McGraw-Hill, Book Company, INC. Gambar dibuat oleh Levri Ardiansyah (2016)

Berikut ini adalah Diagram Komposisi Ilmu Administrasi:

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Dalam tampilan kombinasi warna yang berasal dari warna pada siklus sel, maka gambar Diagram Komposisi Ilmu Administrasi adalah seperti ini:

a

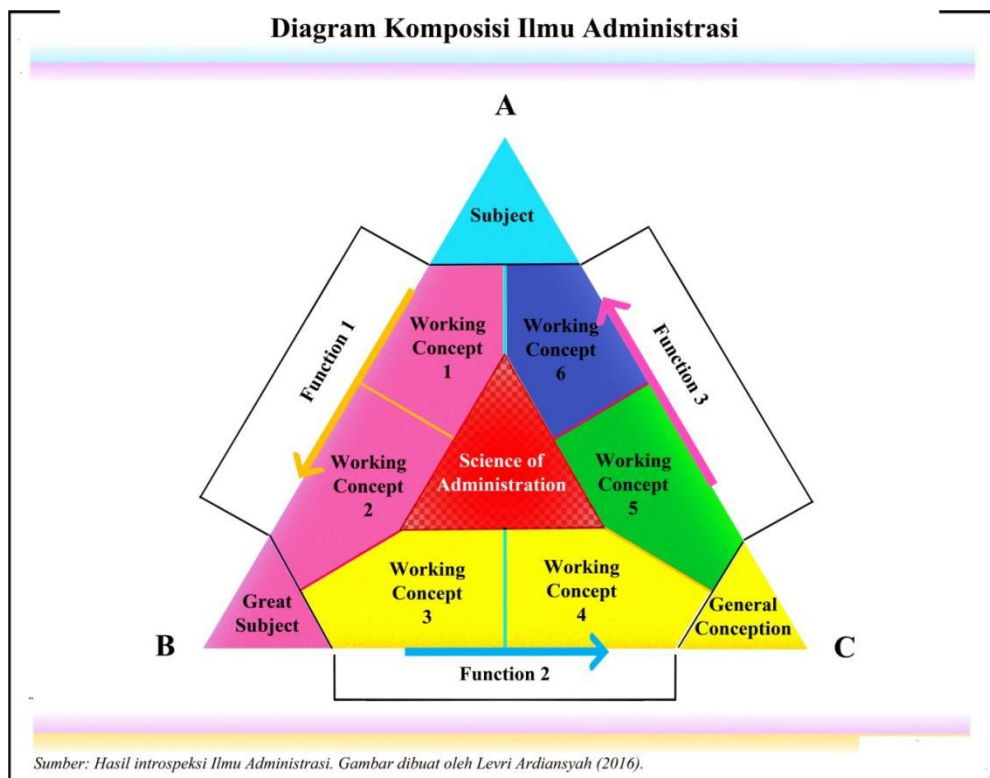
Sumber: Hasil analisis penulis berdasarkan etimologi. Gambar dibuat oleh Levri Ardiansyah (2016).

Dengan demikian, administrasi adalah penataan nilai dan tindakan agar tercipta keteraturan dengan menjaga agar nilai awal tetap sama dengan nilai akhir.

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Diagram ini berarti Ilmu Administrasi mewujudkan *fundamental purpose* dengan cara mewujudkan terlebih dahulu *general conception* B dan setelah itu baru mewujudkan *general conception* C. Pada saat mewujudkan *general conception* B terjadi peristiwa transisi pada *general conception* B sebagai minimalis *general conception* C setelah itu barulah *general conception* B melakukan aktivitas kerja sebagai *working subject* untuk mewujudkan sepenuhnya *general conception* C. Patut diperhatikan disini bahwa aktivitas kerja *practical subject* tidak pernah dapat mewujudkan 100% *general conception* karena ada batas pada area *general conception* yang berfungsi sebagai jarak (*distance*). Begitu juga terjadi pada saat *general conception* C akan mewujudkan sepenuhnya *fundamental purpose,* terlebih dahulu terjadi peristiwa transisi pada *general conception* C sebagai minimalis *fundamental purpose.* Aktivitas kerja *practical subject* pada fase A ini akan berhenti pada jarak area A, lalu berbalik arah menuju area *genral conception* C sehingga *fundamental purpose* tidak pernah akan dapat tercapai sepenuhnya.

Transisi unidireksional adalah transisi searah yaitu dari arah kiri ke kanan (A ke B), dari arah bawah kiri ke kanan atas (B ke C) dan dari arah bawah kanan ke atas kiri (C ke A). Batas adalah area pemberhentian akhir dari kegiatan kerja

practical subject karena bertemu dengan area Jarak (*distance*) yang tidak mempunyai arah, sehingga setiap aktivitas kerja *practical subject* pada area batas akan menyebabkan aktivitas mundur dengan cara berbalik arah. Inilah yang kami maknai sebagai gerak maju mundur seperti pada *oscilating willingness*.

Batas berfungsi sebagai *chekpoint* yaitu area untuk Ilmu Administrasi melakukan evaluasi kapan memulai untuk melanjutkan ataukah harus ditunda terlebih dahulu.

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Diagram Keteraturan Administrasi
V
Divine
of Order
Science of
Administration
Order
of Nature
Human
Order
F
R
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Focal Science Diagram
V
Philosophy
Science of
Administration
Mathematics
Physics
Chemistry
Biology
Psychology
F
R
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Charles Richet dalam buku yang ditulis oleh Pfeiffer (1968:26) berjudul. '*Homeostatic Systems: Mechanisms for Survival . Science IV*' menyatakan bahwa kontradiksi sebenarnya untuk memelihara stabilitas.

The living being is stable. It must be so in order not to be destroyed, dissolved, or disintegrated by the colossal forces, often adverse, which surround it. By an apparent contradiction it maintains its stability only if it is excitable and capable of modifying itself according to external stimuli and adjusting its response to the stimulation. In a sense it is stable because it is modifiable - the slight instability is the necessary condition for the true stability of the organism.

Charles Richet

Sumber: Pfeiffer, Carl H. 1968:26. Homeostatic Systems: Mechanisms for Survival . Science IV. Washington D.C. : Wisconsin State Department of Education. Gambar dibuat oleh Levri Ardiansyah (2016).

a

ENERGY FLOW THROUGH LIVING SYSTEMS

POTENTIAL FORMS OF ENERGY: FUELS FROM THE ENVIRONMENT

CHARGED FORMS OF ENERGY: ACTIVATED INTERMEDIATES WITHIN THE CELL'S BIOCHEMICAL MACHINERY

ENERGY IN THE FORM OF WORK

SPENT FORMS OF ENERGY

CARBOHYDRATES, FATS, PROTEINS → (O_2) (THERMOCHEMICAL WORK) mitochondria → ATP ($CO_2 + H_2O$)

ATP → OSMOTIC WORK, MECHANICAL WORK, ASSEMBLY WORK → ADP + P_i + HEAT

TYPE OF WORK DONE BY THE ORGANISM	MECHANISMS WHICH MAKE THE WORK POSSIBLE	GENERAL NATURE OF CELLS ASSOCIATED WITH THESE MECHANISMS	ASSOCIATED SYSTEMATIC FUNCTIONS
THERMOCHEMICAL (also photo- and electrochemical)	Mechanisms for the Capture, Storage and Utilization of Matter and Energy	transducing absorptive storage metabolic	ingestion digestion assimilation fermentation respiration excretion
OSMOTIC (also Hydraulic)	Mechanisms for the Transport, Regulation and Exchange of Matter and Energy (transport of fluids and regulation of their contents)	transporting secretory excretory	circulation gas exchange ionic, osmo, thermo regulation secretion excretion
MECHANICAL (also osmo-and electrochemical)	Mechanisms enabling organisms to act and react (the physiological basis of behavior)	conductile contractile secretory	conduction contraction secretion excretion support
ASSEMBLY (also reproductive)	Mechanisms by which living matter (either cells, organisms or populations) propogates itself through space & time.	reproductive secretory	cell division reproduction growth [illegible]

17

Sumber: Pfeiffer, Carl H. 1968:17. Homeostatic Systems: Mechanisms for Survival . Science IV. Washington D.C. : Wisconsin State Department of Education. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Homeostatic

V

Science of
Administration

F

R

Association

Consolidation

Homeostatic

V

Science of
Administration

F

R

Family
as primary association

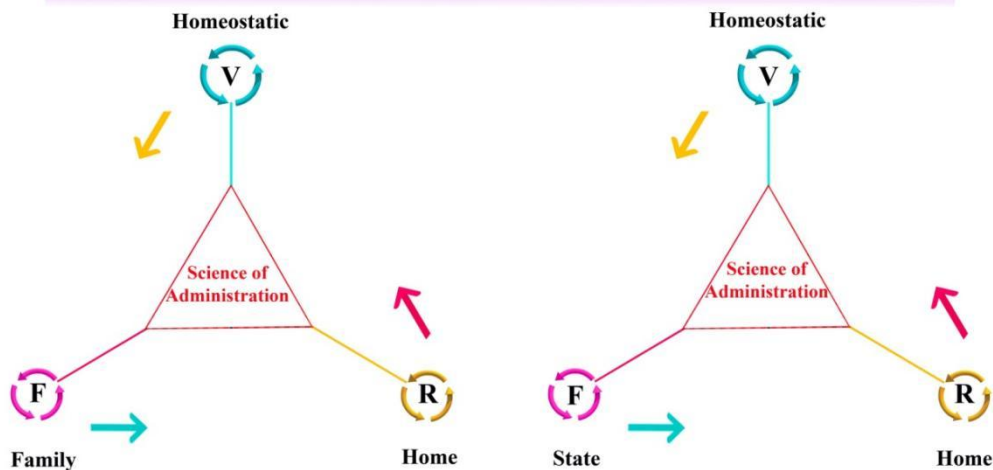
Home

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

a

The family expands into the hamlet, the village, and the town. These simpler forms of association are the beginnings of a State (Parkinson, 1920:46).

25. We have observed how the family, with accretions from without, expands into the hamlet, the village, and the town. These simpler forms of association are the beginnings of a State. Identity of race, language or dialect, of tastes and customs, the physical character or products of the land, the prevalent industry, bind a people together by common interests, pursuits, and enjoyments. The very memories of persons and events, the traditions of lake, river, or mountain, nay, the very sports, and, above all, the religious associations and relations of a district differentiate one locality from another and from the country at large.

Sumber: Parkinson, Henry. 1920:46. A Primer of Social Science. London: P.S. King & Son. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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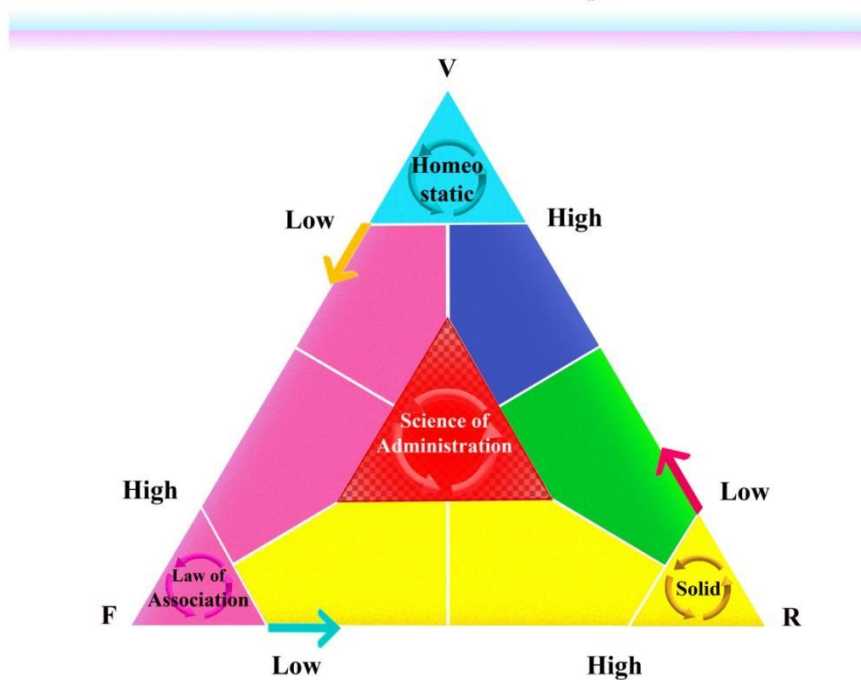
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Equity is not the same thing as equality. Equality may be produced by bringing down the high to the level of the low, while it is the nature of equity to elevate the low to the eminence of the high.

Sumber: Holyoake, George Jacob. 1903:186. The Co-operaiive Movement Today. London: Methuen & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

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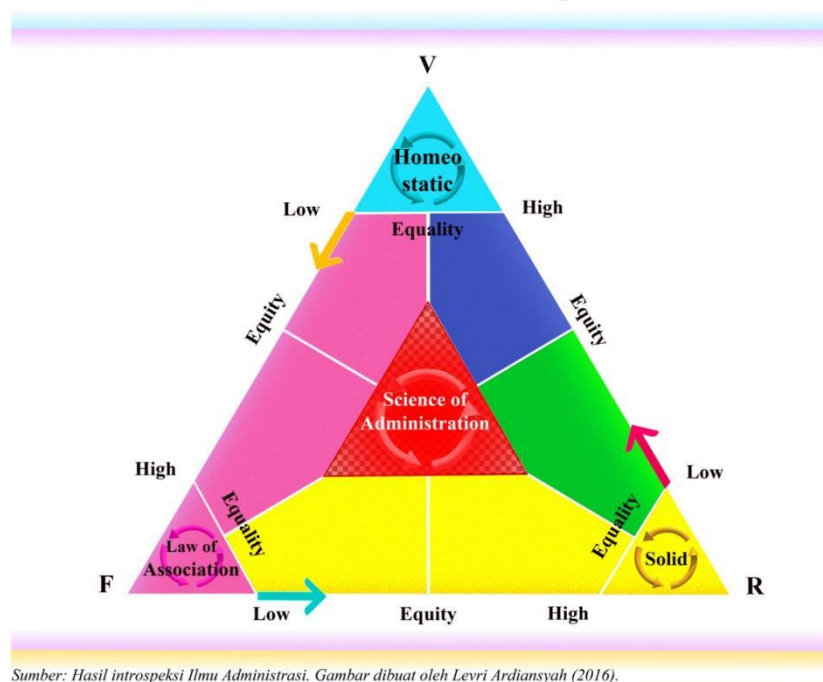
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Dalam Biologi, *equal* berarti *haploid.* Hegner (1914:247) dalam bukunya berjudul '*The Germ-Cell Cycle of Animals*' mengemukakan hal ini seperti ini:

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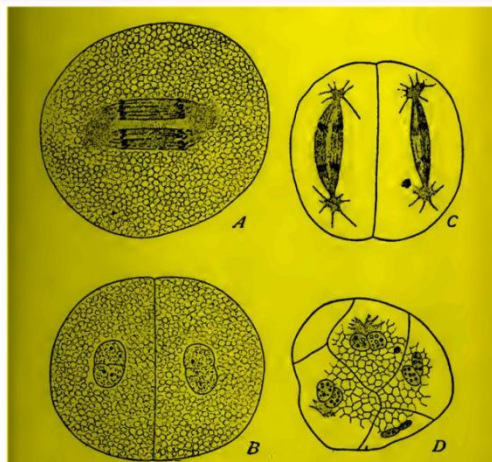
FIG. 61.—Independence of paternal and maternal chromatin in the segmenting eggs of *Cyclops*. *A*. First cleavage-figure in *C. strenuus;* complete independence of paternal and maternal chromosomes. *B*. Resulting two-cell stage with double nuclei. *C*. Second cleavage; chromosomes still in double groups. *D*. Blastomeres with double nuclei from the eight-cell stage of *C. brevicornis*. (*From Wilson, after Haecker.*)

spindle. Each of the two nuclei furnishes an equal (haploid) number of chromosomes to the first

Sumber: Hegner, Robert W. 1914: 247. The Germ-Cell Cycle in Animals. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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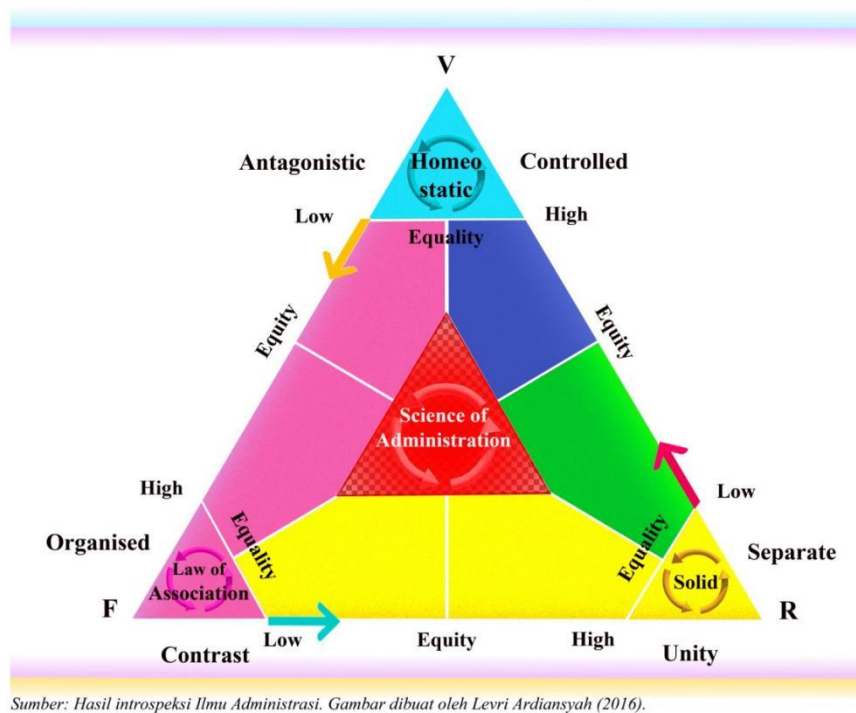
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Istilah *union* telah digunakan Biologi dalam konteks *union of two stocks with paired factors* sebagaimana ditulis Hegner (1914:310) dalam bukunya berjudul '*The Germ-Cell Cycle of Animals*' seperti ini:

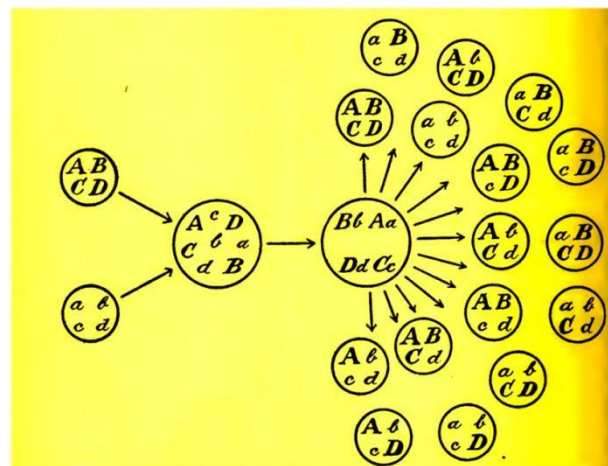
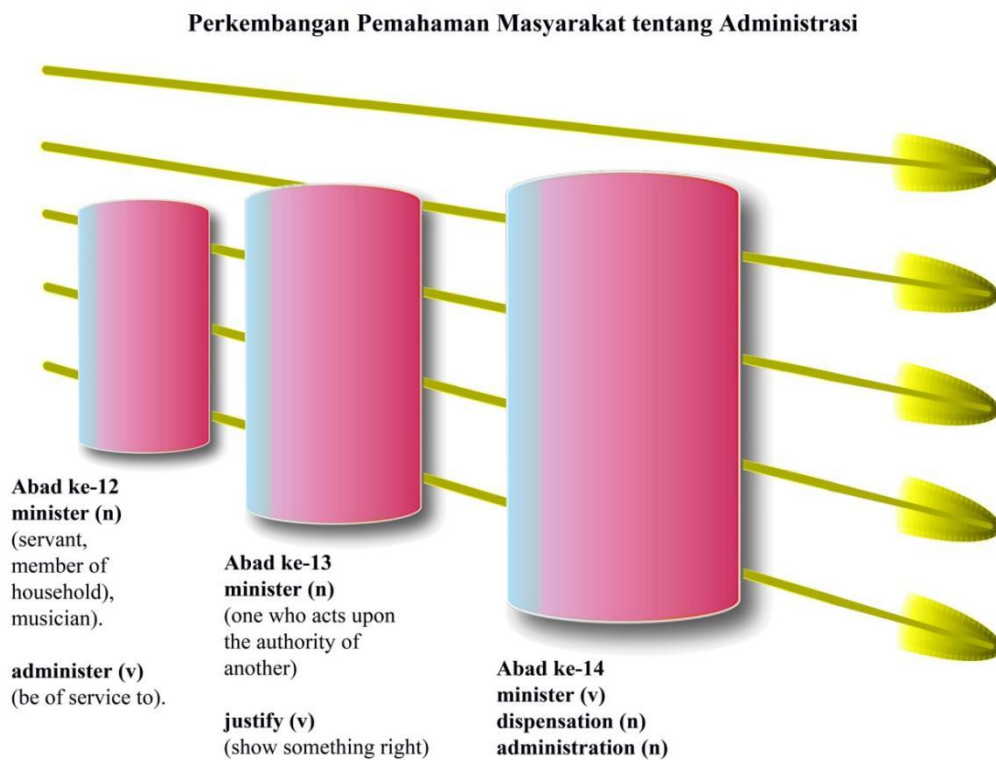



FIG. 84. — Diagrams illustrating the union of two stocks with paired factors *A*, *B*, *C*, *D*, and *a*, *b*, *c*, *d*, to form pairs *Aa*, *Bb*, *Cc*, *Dd*. Their possible recombinations are shown in the sixteen smaller circles. (*After Wilson.*)

Sumber: Hegner, Robert W. 1914:310. The Germ-Cell Cycle in Animals. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

a

Pada pembahasan tentang perkembangan pemahaman masyarakat mengenai arti administrasi tersusun melalui tahap (1) *minister* sebagai kata benda yang dipahami sebagai *servant, member of household, and musician* pada abad ke-12; (2) *minister* sebagai kata benda yang dipahami sebagai *one who acts upon the authority of another* dan *justify* (v) serta (3) *minister* sebagai kata kerja yang juga terkandung pengertian sebagai *dispensation* dan *administration.* Perkembangan kata administrasi ini dapat dipandang sebagai fase 1 pada Segitiga Administrasi yang tergambar seperti ini:

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Sumber: Hasil analisis penulis berdasarkan etimologi. Gambar dibuat oleh Levri Ardiansyah (2016).

Kata *miniter* yang diterapkan masyarakat mengalami perkembangan searah (*unidirectional*) dari pertumbuhan pemahaman sebagai pembantu berkembang menuju pemahaman sebagai orang yang memiliki wewenang hingga dapat bertindak atas dasar otoritas tertentu terhadap orang lainnya. Namun demikian, terdapat *oscilating willingness* yang menyebabkan proses perkembangan *minister* maju mundur.

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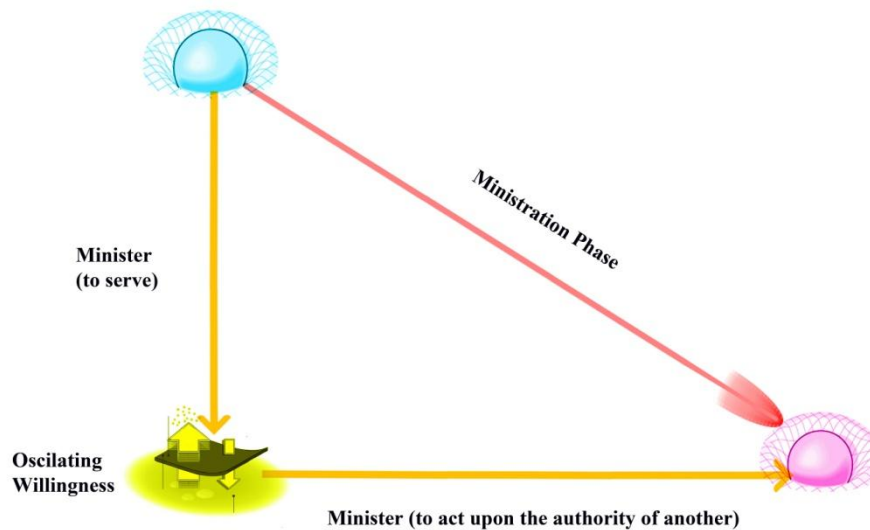
Sumber: Hasil analisis penulis berdasarkan introspeksi Ilmu Administrasi. Gambar dibuat dan diolah oleh Levri Ardiansyah (2016).

Merunut tulisan Leibnitz, *serving* merupakan *first cause* dari *the act of God* sebagai *a metaphysical principle* atau *a deus ex machina* dan sekaligus juga merupakan *prime mover of mind and body alike.* Pandangan Leibnitz ini dapat kita baca dalam buku karya Baldwin (1913:116) berjudul '*History of Psychology A Sketch and an Interpretation. Volume 1*' seperti ini:

In either case, there is the explicit assumption of the act of God—a metaphysical principle, a *deus ex machina*, serving as first cause and prime mover of mind and body alike.

Sumber: Baldwin, James Mark. 1913:116. History of Psychology A Sketch and an Interpretation. Volume 1. London: Watt & CO. Gambar dibuat oleh Levri Ardiansyah (2016).

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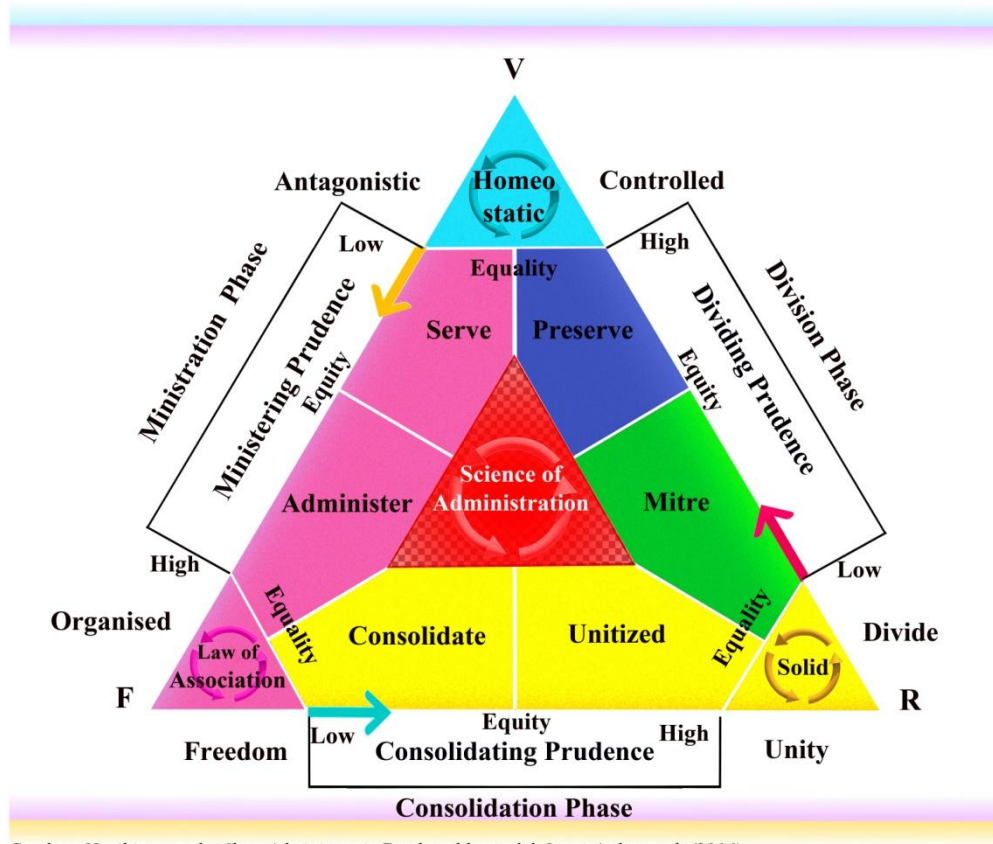
Berdasarkan *Merriam-Webster Dictionary,* kata '*ministration*' berarti *the act or process of ministering,* yang pertama kali digunakan pada abad ke-14. Kata '*ministration*' dapat juga bearti '*minister to'* yang bersinonim dengan kata '*administer (to), care (for), nurse (to)* dan *mother*'. Sedangkan antonim kata '*minister to*' adalah *brush (aside or off), forget, ignore, neglect, overlook* dan *slight.* Kata-kata lain yang berkaitan erat (*related words*) dengan kata '*minister*' adalah '*cure, heal, remedy, doctor, treat, aid, conserve, preserve, provide (for), support, baby, coddle, mollycoddle, pamper, spoil, cater (to), humor,* dan *indulge*'.

a

Diagram Komposisi Ilmu Administrasi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil analisis penulis. Gambar dibuat oleh Levri Ardiansyah (2016).

a

Sumber: Hasil analisis penulis. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil analisis penulis. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil analisis penulis. Gambar dibuat oleh Levri Ardiansyah (2016).

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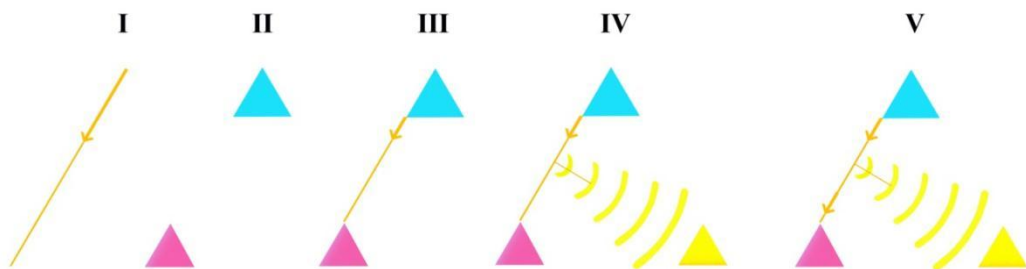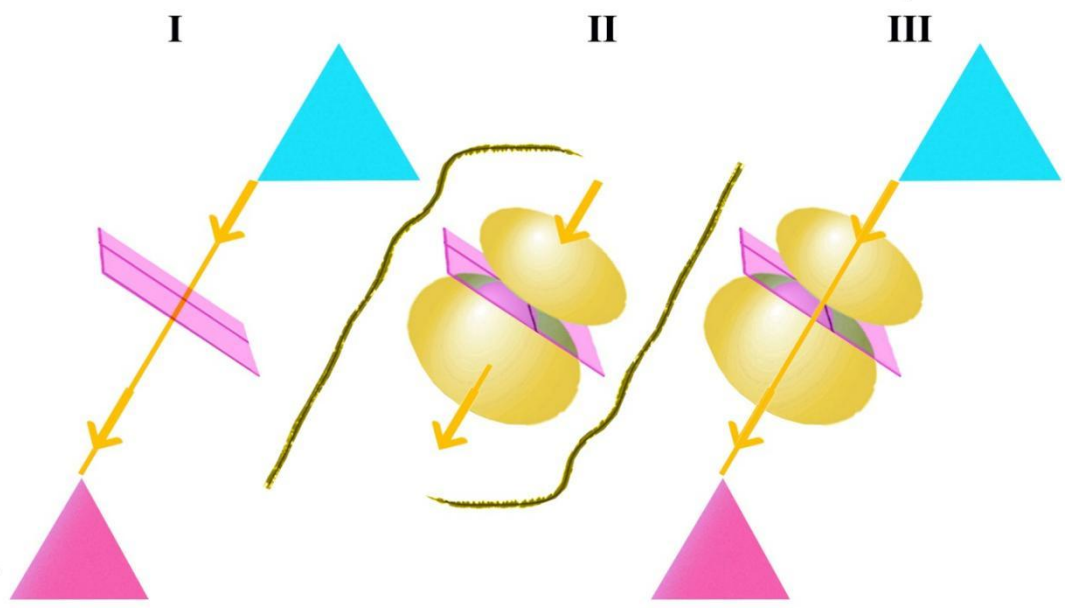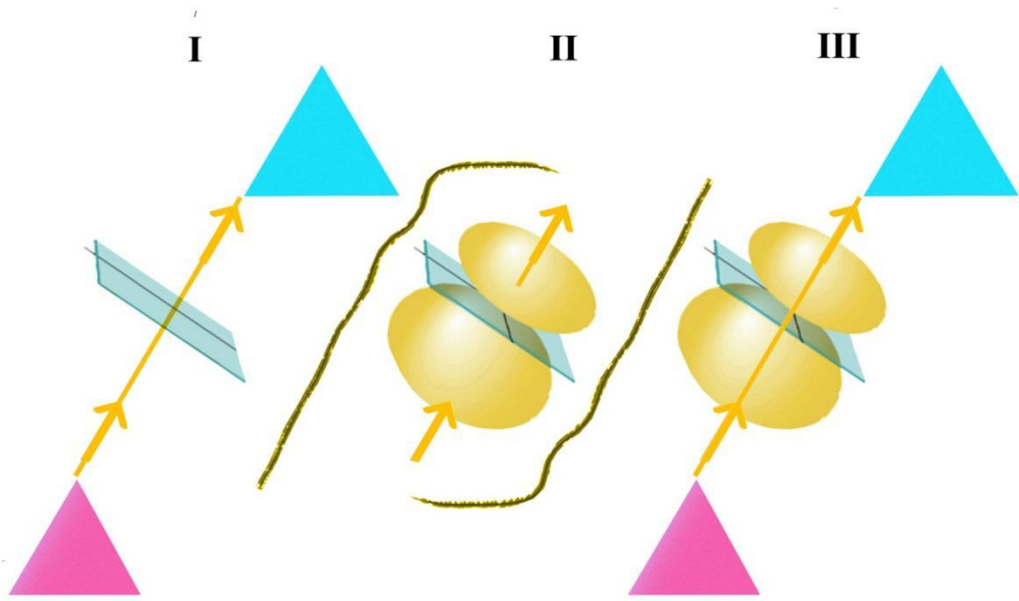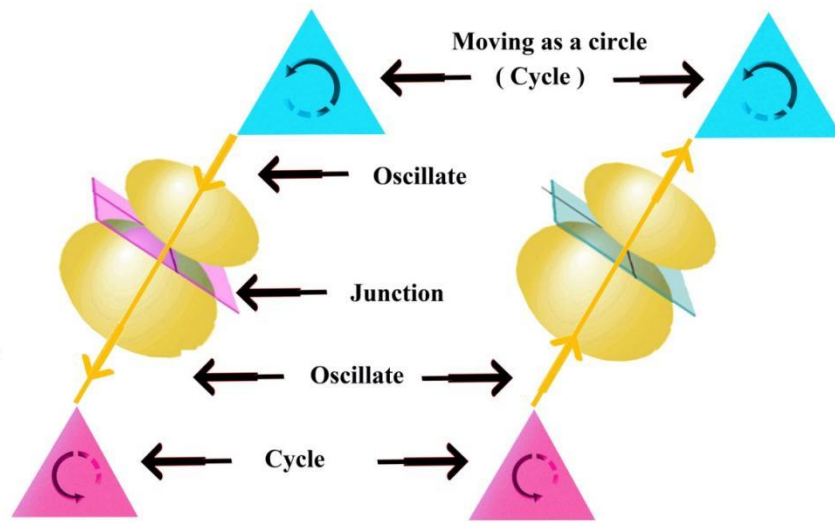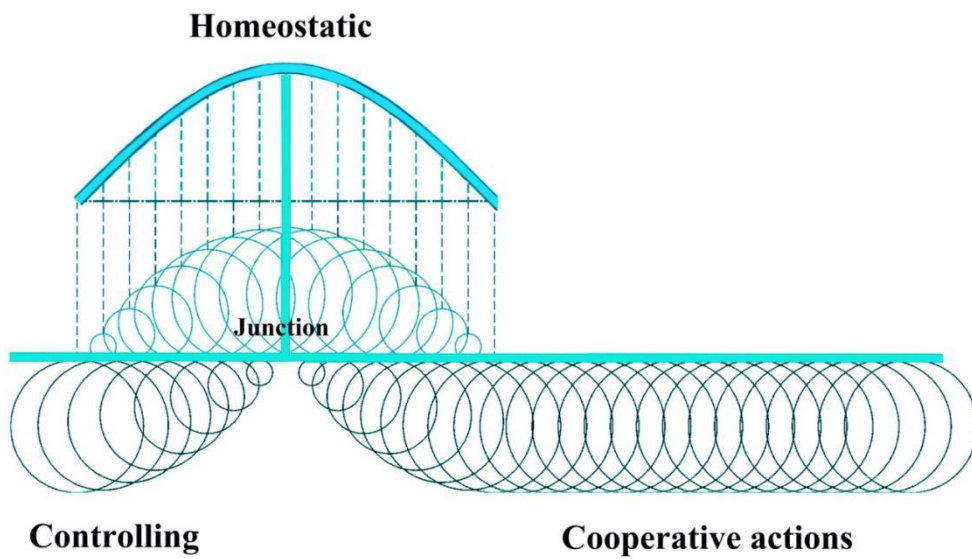
Sumber: Hasil analisis penulis. Gambar dibuat oleh Levri Ardiansyah (2016).

a

ministration

ministration (n.) mid-14c., "the action of ministering or serving," from Old French ministration or directly from Latin ministrationem (nominative ministratio), noun of action from past participle stem of ministrare "to serve" (see minister (v.)).

Sumber: ONLINE ETYMOLOGY DICTIONARY

a

punctuation (n.)

punctuation (n.) 1530s, "pointing of the psalms," from Medieval Latin punctuationem (nominative punctuatio) "a marking with points," noun of action from past participle stem of punctuare "to mark with points or dots," from Latin punctus "a prick" (see point (n.)). Meaning "system of inserting pauses in written matter" is recorded from 1660s.
[P]unctuation is cold notation; it is not frustrated speech; it is typographic code. [Robert Bringhurst, "The Elements of Typographic Style," 2004]

punctuate (v.) 1630s, "to point out," from Medieval Latin punctuatus, past participle of punctuare, from Latin punctus (see point (n.)). Meaning in reference to text, "to have pauses or stops indicated," is from 1818, probably a back-formation from punctuation. Hence, "interrupted at intervals" (1833). Related: Punctuated; punctuating.

interpunction (n.) "punctuation, a point inserted in writing," 1610s, from Latin interpunctionem (nominative interpunctio) "a putting of points between (words), division by points," noun of action from past participle stem of interpungere "to put points between," from inter- "between" (see inter-) + pungere "to prick, pierce," related to pugnus "a fist" (see pugnacious).

colon (n.1) punctuation mark, 1540s, from Latin colon "part of a poem," from Greek kolon (with a long initial -o-) "part of a verse," literally "limb, member" (especially the leg, but also of a tree limb), also, figuratively, "a clause of a sentence," from PIE root *(s)kel- (3) "bent, crooked" (see scoliosis). Meaning evolved from "independent clause" to punctuation mark that sets it off.

comma (n.) 1520s as a Latin word, nativized by 1590s, from Latin comma "short phrase," from Greek komma "clause in a sentence," literally "piece which is cut off," from koptein "to cut off," from PIE root *kop- "to beat, strike" (see hatchet (n.)). Like colon (n.1) and period, originally a Greek rhetorical term for a part of a sentence, and like them it has been transferred to the punctuation mark that identifies it.

Sumber: ONLINE ETYMOLOGY DICTIONARY

a

punctuation (n.)

distinguish (v.) 1560s, from Middle French distinguiss-, stem of distinguer, or directly from Latin distinguere "to separate between, keep separate, mark off, distinguish," perhaps literally "separate by pricking," from dis- "apart" (see dis-) + -stinguere "to prick" (compare extinguish and Latin instinguere "to incite, impel").
Watkins says "semantic transmission obscure;" the sense might be from "pricking out" as the old way to make punctuation in parchment or some literal image, but de Vaan derives the second element from a different PIE root meaning "to push, thrust."
The meanings of ex- and restinguere 'to extinguish' and distinguere seem quite distinct, but can be understood if the root meant 'to press' or 'push': ex-stinguere 'to put a fire out', re-stinguere 'to push back, suppress', and dis-stinguere 'to push apart [thence] distinguish, mark off ...."
The suffix -ish is due to the influence of many verbs in which it is the equivalent of Old French -iss-, ultimately from Latin inchoative suffix -iscere (this is also the case in extinguish, admonish, and astonish). Related: Distinguishing. The earlier form of the verb was distinguen (mid-14c.).

case (n.2) "receptacle," early 14c., from Anglo-French and Old North French casse (Old French chasse "case, reliquary;" Modern French châsse), from Latin capsa "box, repository" (especially for books), from capere "to take, hold" (see capable).
Meaning "outer protective covering" is from late 14c. Also used from 1660s with a sense "frame" (as in staircase, casement). Artillery sense is from 1660s, from case-shot "small projectiles put in cases" (1620s). Its application in the printing trade (first recorded 1580s) to the two trays where compositors keep their types in separate compartments for easy access led to upper-case letter for a capital (1862) and lower-case for small letters.
"The cases, or receptacles, for the type, which are always in pairs, and termed the 'upper' and the 'lower,' are formed of two oblong wooden frames, divided into compartments or boxes of different dimensions, the upper case containing ninety-eight and the lower fifty-four. In the upper case are placed the capital, small capital, and accented letters, also figures, signs for reference to notes &c.; in the lower case the ordinary running letter, points for punctuation, spaces for separating the words, and quadrats for filling up the short lines." ["The Literary Gazette," Jan. 29, 1859]

Sumber: ONLINE ETYMOLOGY DICTIONARY

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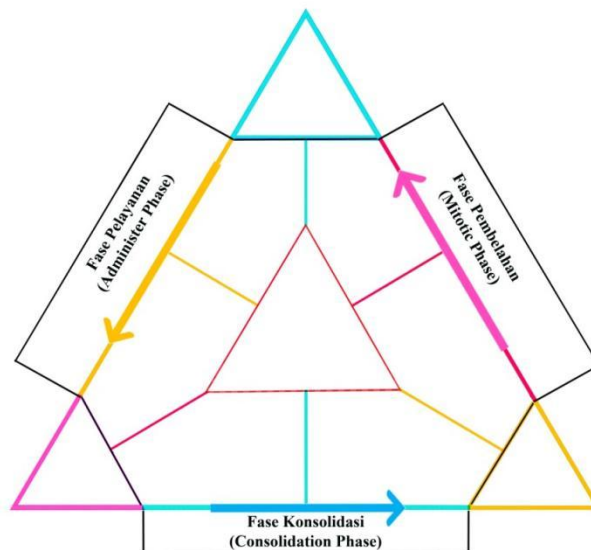
homeostasis
a constant set of conditions within cells

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Order

order (n.)

early 13c., "body of persons living under a religious discipline," from Old French ordre "position, estate; rule, regulation; religious order" (11c.), from earlier ordene, from Latin ordinem (nominative ordo) "row, rank, series, arrangement," originally "a row of threads in a loom," from Italic root *ord- "to arrange, arrangement" (source of ordiri "to begin to weave;" compare primordial), of unknown origin.
Meaning "a rank in the (secular) community" is first recorded c. 1300; meaning "command, directive" is first recorded 1540s, from the notion of "to keep in order." Military and honorary orders grew our of the fraternities of Crusader knights. Business and commerce sense is attested from 1837. In natural history, as a classification of living things, it is first recorded 1760. Meaning "condition of a community which is under the rule of law" is from late 15c.
Phrase in order to (1650s) preserves etymological notion of "sequence." The word reflects a medieval notion: "a system of parts subject to certain uniform, established ranks or proportions," and was used of everything from architecture to angels. Old English expressed many of the same ideas with endebyrdnes. In short order "without delay" is from 1834, American English; order of battle is from 1769.

order (v.)

c. 1200, "give order to, to arrange in order," from order (n.). Meaning "to give orders for or to" is from 1540s. Related: Ordered; ordering.

ordeal (n.)

Old English ordel, ordal, "trial by physical test," literally "judgment, verdict," from Proto-Germanic noun *uz-dailjam (cognates: Old Saxon urdeli, Old Frisian urdel, Dutch oordeel, German urteil "judgment"), literally "that which is dealt out" (by the gods), from *uzdailijan "share out," related to Old English adælan "to deal out" (see deal (n.1)). Curiously absent in Middle English, and perhaps reborrowed 16c. from Medieval Latin or Middle French, which got it from Germanic. The notion is of the kind of arduous physical test (such as walking blindfolded and barefoot between red-hot plowshares) that was believed to determine a person's guilt or innocence by immediate judgment of the deity, an ancient Teutonic mode of trial. English retains a more exact sense of the word; its cognates in German, etc., have been generalized. Metaphoric extension to "anything which tests character or endurance" is attested from 1650s. The prefix or- survives in English only in this word, but was common in Old English and other Germanic languages (Gothic ur-, Old Norse or-, etc.) and originally was an adverb and preposition meaning "out."

Sumber: ONLINE ETYMOLOGY DICTIONARY

a

Order

order (n.)

early 13c., "body of persons living under a religious discipline," from Old French ordre "position, estate; rule, regulation; religious order" (11c.), from earlier ordene, from Latin ordinem (nominative ordo) "row, rank, series, arrangement," originally "a row of threads in a loom," from Italic root *ord- "to arrange, arrangement" (source of ordiri "to begin to weave;" compare primordial), of unknown origin.
Meaning "a rank in the (secular) community" is first recorded c. 1300; meaning "command, directive" is first recorded 1540s, from the notion of "to keep in order." Military and honorary orders grew our of the fraternities of Crusader knights. Business and commerce sense is attested from 1837. In natural history, as a classification of living things, it is first recorded 1760. Meaning "condition of a community which is under the rule of law" is from late 15c.
Phrase in order to (1650s) preserves etymological notion of "sequence." The word reflects a medieval notion: "a system of parts subject to certain uniform, established ranks or proportions," and was used of everything from architecture to angels. Old English expressed many of the same ideas with endebyrdnes. In short order "without delay" is from 1834, American English; order of battle is from 1769.

order (v.)

c. 1200, "give order to, to arrange in order," from order (n.). Meaning "to give orders for or to" is from 1540s. Related: Ordered; ordering.

well-ordered (adj.)

c. 1600, from well (adv.) + past participle of order (v.).

orderly (adv.)

late 15c., "in due order," from order + -ly (2).
"arranged in order," 1570s, from order (n.) + -ly (1).
"military attendant who carries orders," 1781, short for orderly corporal, etc. Extended 1809 to an attendant at a hospital (originally a military hospital) charged with keeping things in order and clean. See orderly (adj.).

horde (v.)

"to live or gather in hordes," 1821, from horde (n.). Related: Horded; hording.

Sumber: ONLINE ETYMOLOGY DICTIONARY

a

Horde

horde (n.) 1550s, "tribe of Asiatic nomads living in tents," from West Turkic (compare Tatar urda "horde," Turkish ordu "camp, army"), borrowed into English via Polish, French, or Spanish. OED says the initial -h- seems to have been acquired in Polish. Transferred sense of "any uncivilized gang" is from 1610s. Related: Hordes.

Tartar mid-14c. (implied in Tartary, "the land of the Tartars"), from Medieval Latin Tartarus, from Persian Tatar, first used 13c. in reference to the hordes of Ghengis Khan (1202-1227), said to be ultimately from Tata, a name of the Mongols for themselves. Form in European languages probably influenced by Latin Tartarus "hell" (e.g. letter of St. Louis of France, 1270: "In the present danger of the Tartars either we shall push them back into the Tartarus whence they are come, or they will bring us all into heaven").
The historical word for what now are called in ethnological works Tatars. A Turkic people, their native region was east of the Caspian Sea. Ghengis' horde was a mix of Tatars, Mongols, Turks, etc. Used figuratively for "savage, rough, irascible person" (1660s). To catch a Tartar "get hold of what cannot be controlled" is recorded from 1660s; original sense not preserved, but probably from some military story similar to the old battlefield joke:
Irish soldier (shouting from within the brush): I've captured one of the enemy.
Captain: Excellent! Bring him here.
Soldier: He won't come.
Captain: Well, then, you come here.
Soldier: I would, but he won't let me.
Among the adjectival forms that have been used are Tartarian (16c.), Tartarous (Ben Jonson), Tartarean (17c.); Byron's Tartarly (1821) is a nonce-word (but a good one). Tartar sauce is first recorded 1855, from French sauce tartare.

Sumber: ONLINE ETYMOLOGY DICTIONARY

a

homeostasis

homeostasis (n.) 1926, from homeo- + Greek stasis "standing still" (see stasis). Related: Homeostatic.

homeo- also homoeo-, word-forming element meaning "similar to," Latinized from Greek homio-, from homoios "like, resembling, of the same kind; equal," related to or an expanded form of homos "one and the same," from PIE *sem- (1) "one, as one" (see same).

same (adj.) perhaps abstracted from Old English swa same "the same as," but more likely from Old Norse same, samr "same," both from Proto-Germanic *sama- "same" (cognates: Old Saxon, Old High German, Gothic sama, Old High German samant, German samt "together, with," Gothic samana "together," Dutch zamelen "to collect," German zusammen "together"), from PIE *samos "same," from root *sem- (1) "one," also "as one" (adv.), "together with" (cognates: Sanskrit samah "even, level, similar, identical;" Avestan hama "similar, the same;" Greek hama "together with, at the same time," homos "one and the same," homios "like, resembling," homalos "even;" Latin similis "like;" Old Irish samail "likeness;" Old Church Slavonic samu "himself").
Old English had lost the pure form of the word; the modern word replaced synonymous ilk. As a pronoun from c. 1300. Colloquial phrase same here as an exclamation of agreement is from 1895. Same difference curious way to say "equal," is attested from 1945.

ilk (adj.) Old English ilca "the same" (pron.), from Proto-Germanic *ij-lik (compare German eilen), in which the first element is from the PIE demonstrative particle *i- (see yon) and the second is that in Old English -lic "form" (see like (adj.)). Of similar formation are each, which and such, but this word disappeared except in Scottish and thus did not undergo the usual southern sound changes. Phrase of that ilk implies coincidence of name and estate, as in Lundie of Lundie; it was applied usually to families, so that by c. 1790 ilk began to be used with the meaning "family," then broadening to "type, sort."

stasis (n.) "stoppage of circulation," 1745, from medical Latin, from Greek stasis "a standing still, a standing; the posture of standing; a position, a point of the compass; position, state, or condition of anything;" also "a party, a company, a sect," especially one for seditious purposes; related to statos "placed," verbal adjective of histemi "cause to stand," from PIE root *stā- "to stand" (see stet).

stet direction to printer to disregard correction made to text, 1755, from Latin stet "let it stand," third person singular present subjunctive of stare "to stand, stand upright, be stiff," from PIE root *stā- "to stand, set down, make or be firm," with derivatives meaning "place or thing that is standing" (cognates: Sanskrit tisthati "stands;" Avestan histaiti "to stand;" Persian -stan "country," literally "where one stands;" Greek histemi "put, place, cause to stand; weigh," stasis "a standing still," statos "placed," stater "a weight, coin," stylos "pillar;" Latin sistere "stand still, stop, make stand, place, produce in court," status "manner, position, condition, attitude," stare "to stand," statio "station, post;" Lithuanian stojus "place myself," statau "place;" Old Church Slavonic staja "place myself," stanu "position;" Gothic standan, Old English standan "to stand," stede "place," steall "place where cattle are kept;" Old Norse steði "anvil," stallr "pedestal for idols, altar;" German Stall "a stable;" Old Irish sessam "the act of standing").

Sumber: ONLINE ETYMOLOGY DICTIONARY

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harmony

harmony (n.) late 14c., "combination of tones pleasing to the ear," from Old French harmonie, armonie "harmony," also the name of a musical instrument (12c.), from Latin harmonia, from Greek harmonia "agreement, concord of sounds," also as a proper name, the personification of music, literally "means of joining," used of ship-planks, etc., also "settled government, order," related to harmos "fastenings of a door; shoulder," from PIE *ar-ti-, from *ar- "to fit together" (see arm (n.1)). Modern scientific harmony, using combinations of notes to form chords, is from 16c. Sense of "agreement of feeling, concord" is from late 14c.

harmonize (v.) late 15c., "play or sing in harmony," from French harmoniser (15c.), from Old French harmonie (see harmony). Meaning "be in harmony (with), go well together" is from 1620s. Transitive sense "bring into harmony" is from 1700; figurative sense "bring into agreement" is from 1767. Meaning "add harmony to (a melody)" is from 1790. Related: Harmonized; harmonizing.

harmonic (adj.) 1560s, "relating to music," from Latin harmonicus, from Greek harmonikos "harmonic, musical, skilled in music," from harmonia (see harmony). From 1660s as "tuneful, harmonious; relating to harmony" (earlier as armonical "tuneful, harmonious," c. 1500). The noun, short for harmionic tone, is recorded from 1777. Related: Harmonically.

harmonious (adj.) 1520s, "sounding together tunefully," from Middle French harmonieux (14c.), from harmonie (see harmony). In nonmusical use from 1630s. Related: Harmoniously; harmoniousness.

harmonium (n.) keyboard instrument, a kind of reed-organ popular late 19c. in homes and smaller churches, 1847, from French harmonium, from Greek harmonia (see harmony). Harmonium-like instruments predate the improved version patented 1840 in France by Alexandre Debain, who gave it the name.

harmonist (n.) 1742, "one skilled in musical harmony," from harmony + -ist. Also "writer who 'harmonizes' the parallel narratives of the Gospel" (1713) and "member of a communistic religious movement in Pennsylvania" (1824). From the former comes harmonistics (1859).

Sumber: ONLINE ETYMOLOGY DICTIONARY

a

harmony

number (n.) c. 1300, "sum, aggregate of a collection," from Anglo-French noumbre, Old French nombre and directly from Latin numerus "a number, quantity," from PIE root *nem- "to divide, distribute, allot" (related to Greek nemein "to deal out;" see nemesis). eaning "symbol or figure of arithmetic value" is from late 14c. Meaning "single (numbered) issue of a magazine" is from 1795. Meaning "dialing combination to reach a particular telephone receiver" is from 1879; hence wrong number (1886). The modern meaning "musical selection" (1885) is from vaudeville theater programs, where acts were marked by a number. Earlier numbers meant "Harmony; proportion calculated by number," and "Verses, poetry" [Johnson]. Number one "oneself" is from 1704 (mock-Italian form numero uno attested from 1973); the biblical Book of Numbers (c. 1400, Latin Numeri, Greek Arithmoi) so called because it begins with a census of the Israelites. Slang number one and number two for "urination" and "defecation" attested from 1902. Number cruncher is 1966, of machines; 1971, of persons. To get or have (someone's) number "have someone figured out" is attested from 1853. The numbers "illegal lottery" is from 1897, American English.

nemesis 1570s, Nemesis, "Greek goddess of vengeance, personification of divine wrath," from Greek nemesis "just indignation, righteous anger," literally "distribution" (of what is due), related to nemein "distribute, allot, apportion one's due," from PIE root *nem- "to divide, distribute, allot, to take" (cognates: Old English, Gothic niman "to take," German nehmen; see nimble). With a lower-case -n-, in the sense of "retributive justice," attested from 1590s. General sense of "anything by which it seems one must be defeated" is 20c.

raga (n.) 1788, from Sanskrit raga-s "harmony, melody, mode in music," literally "color, mood," related to rajyati "it is dyed," from PIE *reg- (3) "to dye" (cognates: Greek rhegos "blanket, rug").

concert (n.) 1660s, "agreement, accord, harmony," from French concert (16c.), from Italian concerto "concert, harmony," from concertare "bring into agreement," in Latin "to contend, contest, dispute," from com- "with" (see com-) + certare "to contend, strive," frequentative of certus, variant past participle of cernere "separate, decide" (see crisis). Before the word entered English, meaning shifted from "to strive against" to "to strive alongside." Sense of "public musical performance" is 1680s. But Klein considers this too much of a stretch and suggests Latin concentare "to sing together" (from con- + cantare "to sing") as the source of the Italian word in the musical sense.

balance (n.) early 13c., "apparatus for weighing," from Old French balance (12c.) "balance, scales for weighing," also in the figurative sense; from Medieval Latin bilancia, from Late Latin bilanx, from Latin (libra) bilanx "(scale) having two pans," possibly from Latin bis "twice" + lanx "dish, plate, scale of a balance." The accounting sense is from 1580s; the meaning "general harmony between parts" is from 1732; sense of "physical equipoise" is from 1660s. Balance of power in the geopolitical sense is from 1701. Many figurative uses (such as hang in the balance, late 14c.), are from Middle English image of the scales in the hands of personified Justice, Fortune, Fate, etc.

Sumber: ONLINE ETYMOLOGY DICTIONARY

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Herbert Spencer dalam tulisan pengantarnya untuk buku yang ditulis oleh Collins (1889: *x*) berjudul '*An Epitome of The Synthetic Philosophy',* menggunakan istilah *segregation* untuk menyatakan peristiwa berpisahnya unit-unit yang berbeda dan menyatukan mereka secara bersama-sama menjadi unit yang serupa (*separate unlike units, and to bring together like units*). Istilah *segregation* ini menekankan pada berpisahnya unit, sehingga tidak tepat kita gunakan untuk peristiwa padu (*solidify*) yang membagi setelah sebelumnya terlebih dahulu telah menjadi padu.

8. In the absence of a homogeneity that is infinite and absolute, that redistribution of which evolution is one phase, is inevitable. The causes which necessitate it are these:—

9. The instability of the homogeneous, which is consequent upon the different exposures of the different parts of any limited aggregate to incident forces. The transformations hence resulting are complicated by—

10. The multiplication of effects. Every mass and part of a mass on which a force falls, sub-divides and differentiates that force, which thereupon proceeds to work a variety of changes; and each of these becomes the parent of similarly-multiplying changes: the multiplication of them becoming greater in proportion as the aggregate becomes more heterogeneous. And these two causes of increasing differentiations are furthered by—

11. Segregation, which is a process tending ever to separate unlike units and to bring together like units—so serving continually to sharpen, or make definite, differentiations otherwise caused.

12. Equilibration is the final result of these transformations which an evolving aggregate undergoes. The changes go on until there is reached an equilibrium between the forces which all parts of the aggregate are exposed to and the forces these parts oppose to them. Equilibration may pass through a transition stage of balanced motions (as in a planetary system) or of balanced functions (as in a living body) on the way to ultimate equilibrium; but the state of rest in inorganic bodies, or death in organic bodies, is the necessary limit of the changes constituting evolution.

Sumber: Collins, F. Howard. 1889:ix-x. An Epitome of The Synthetic Philosophy. New York: D. Appleton and Company.
Gambar dibuat oleh Levri Ardiansyah (2016).

Dengan demikian dapat digambarkan diagram komposisi Ilmu Administrasi seperti ini:

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Consolidation

a

concentration and consolidation

According to Herbert Spencer and his school, the integration ('aggregation,' 'concentration,' 'consolidation') of matter is one of the two most general momenta of the evolution process, and disintegration of the process of dissolution: 'Evolution, under its simplest and most general aspect, is the integration of matter and concomitant dissipation of motion; while dissolution is the absorption of motion and concomitant disintegration of matter' (*First Princ.*, § 97).

Sumber: Baldwin, James Mark. 1901:558. Dictionary of Philosophy and Psychology. New York: The Macmillan Company.
Gambar dibuat oleh Levri Ardiansyah (2016).

a

4. Solids. A board, a piece of chalk, or an iron bar is an example of a physical solid. If a board be moved from one place to another, the space it has occupied at any instant is an example of a geometric solid. A physical solid can be seen and touched; a geometric solid cannot — it is purely a mental concept. The science of physics is a study of the nature and properties of the material of which physical solids are constituted, while geometry is a study of the size and shape of solids but not of the matter composing them.

Sumber: Hawkes, Herbert E. 1920:4. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Jika:

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Sumber: Hasil analisis penulis. Gambar dibuat oleh Levri Ardiansyah (2016).

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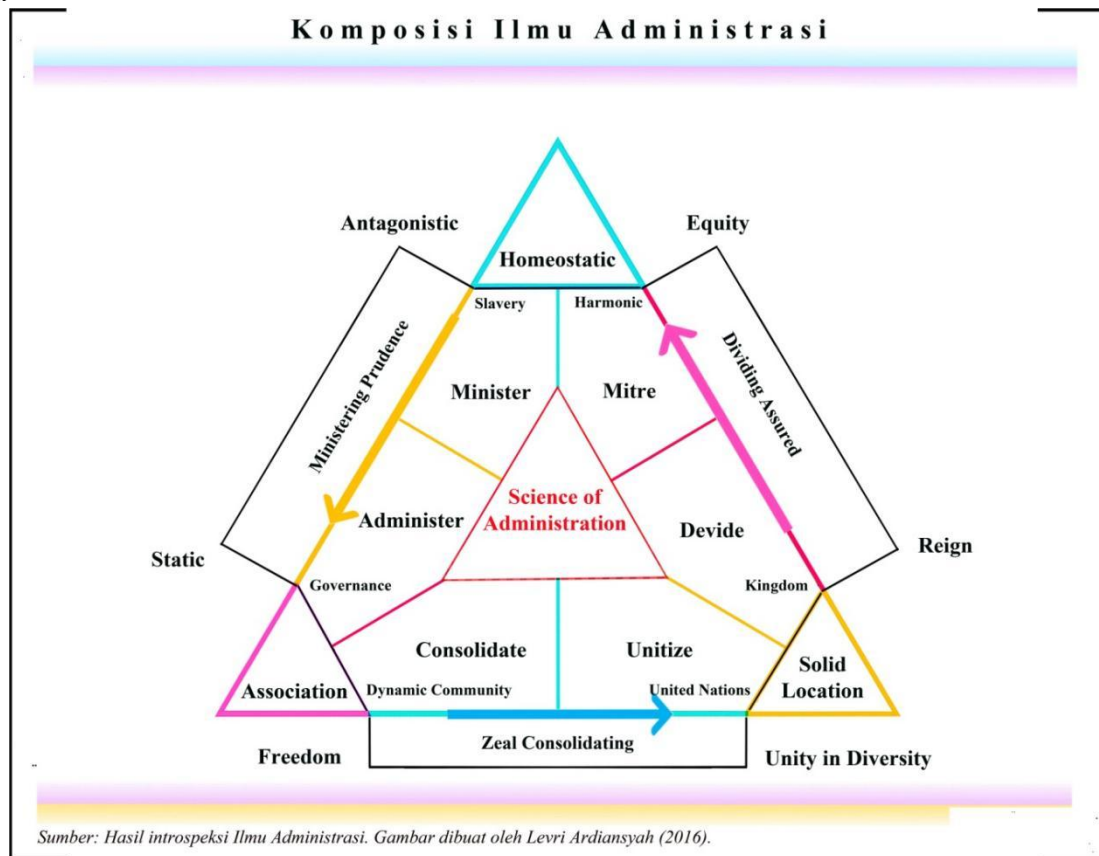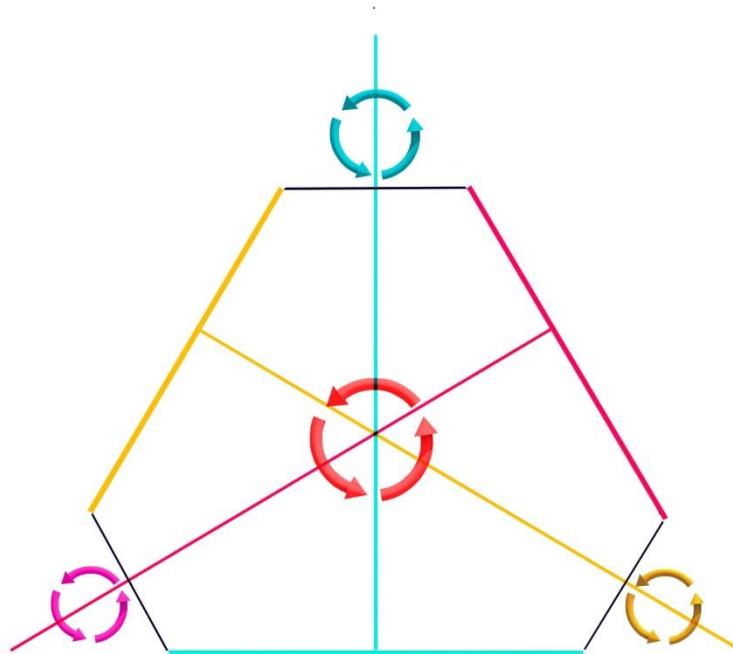
Sumber: Hasil analisis penulis. Gambar dibuat oleh Levri Ardiansyah (2016).

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The area of a circle is very much more difficult to measure than that of any figure bounded by straight lines. The part of a plane bounded by a circle cannot be divided up into squares or rectangles, however small they may be, nor can its area be made to depend in any simple way on either.

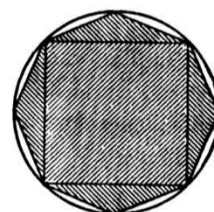
Just what is meant by the area of a circle and how it may be determined can be understood by reference to the adjacent figure. The area of the inscribed square is less than the area of the circle. The area of the regular inscribed octagon is greater than that of the square but less than the area of the circle. If regular inscribed polygons of 16, 32, 64, 128, etc. sides are constructed, the area of each polygon is greater than that of the preceding one and less than that of the circle. If this process is continued, a polygon can be obtained whose area is as nearly equal to the area of the circle as we please. A similar illustration can be obtained from regular circumscribed polygons of 4, 8, 16, 32, etc. sides.

Sumber: Hawkes, Herbert E. 1920:276. Plane Geometry. Boston: The Etbeneum Press. Gambar dibuat oleh Levri Ardiansyah (2016).

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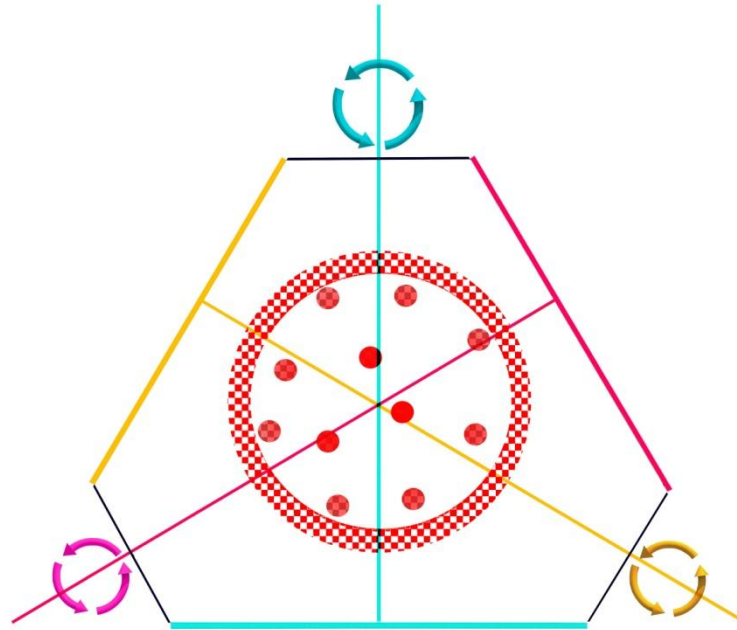
Diagram Komposisi Ilmu Administrasi

Sumber: Hasil analisis penulis. Gambar dibuat oleh Levri Ardiansyah (2016).

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Ray merupakan sebuah garis lurus satu arah (*one direction*) yang berawal pada satu poin (*one beginning point*). Sebagai sebuah *undefined, ray* adalah *never ending path in one direction*. Panjang garis lurus pada *ray* berawal pada *point* dan berakhir pada tanda panah diujung garis. Panjang garis ini dikenal juga sebagai *magnitude*. Hadley (1977:20) dalam bukunya berjudul '*Linear Algebra*' menulis '*In geometrical language, the magnitude of a vector **a** which we shall denote by* I**a**I, *is often called its ''length' of the line from the origin to the terminal point of vector represents its magnitude*'.

a

Vectors are often represented geometrically by a line with an arrowhead on the end of it. The length of the line indicates the magnitude of the vector, and the arrow denotes its direction. When representing vectors geometrically as directed line segments, it is desirable to introduce a coordinate system as a reference for directions and as a scale for lengths. Familiar rectangular coordinates will be used. Usually, the coordinate axes will be named x_1, x_2, x_3. Some vectors lying in a plane are shown in Fig. 2–1.

Sumber: Hadley, G. 1977:17. Linear Algebra. London: Addison-Wesley Publishing Company, Inc. Gambar dibuat oleh Levri Ardiansyah (2016).

a

Ray, Line, Direction, dan Magnitude sebagai Vector Quantity

Gambar Ray, Line, Direction, dan Magnitude sebagai Vector

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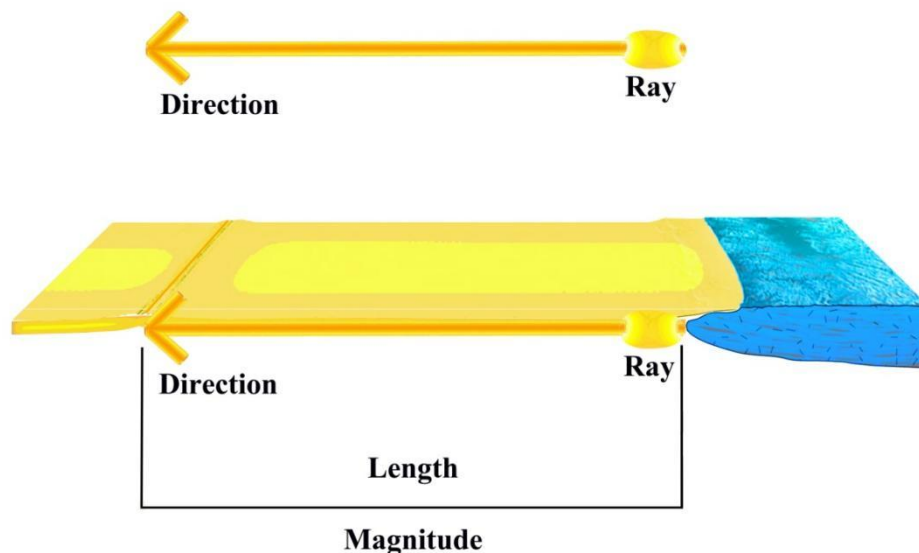
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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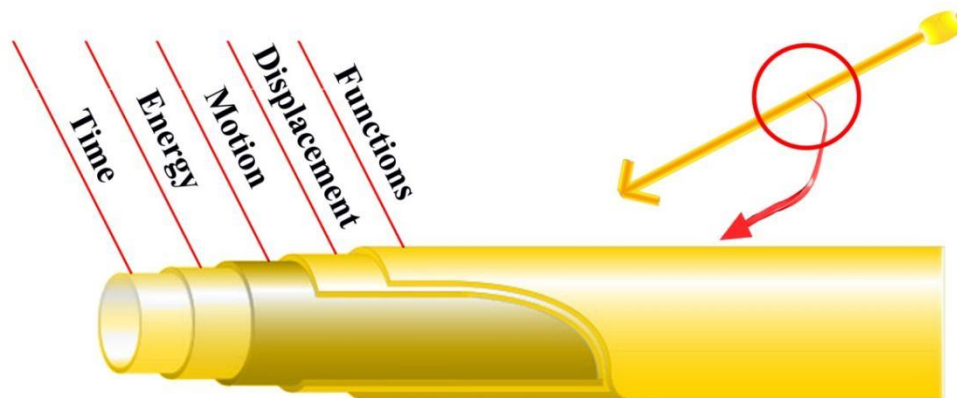
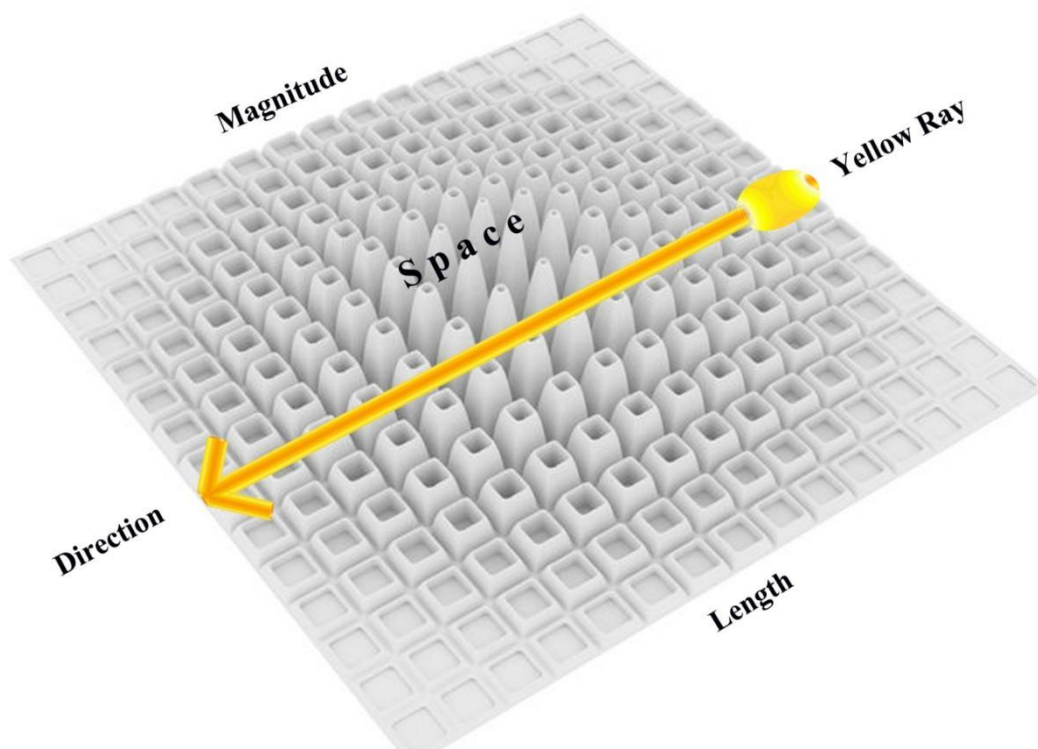
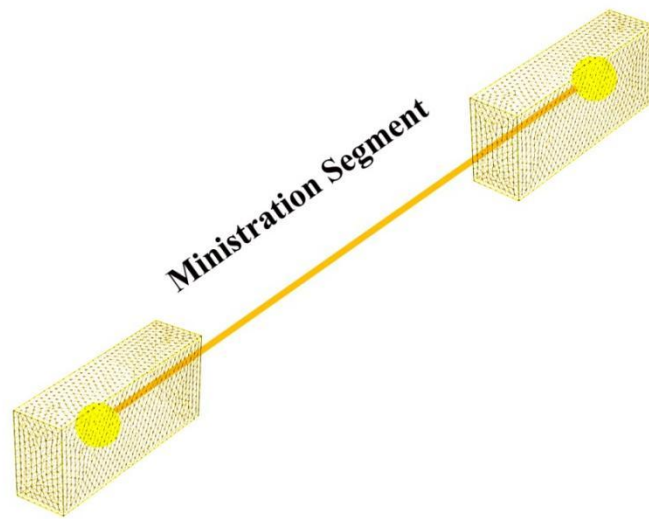
Ministration Segment

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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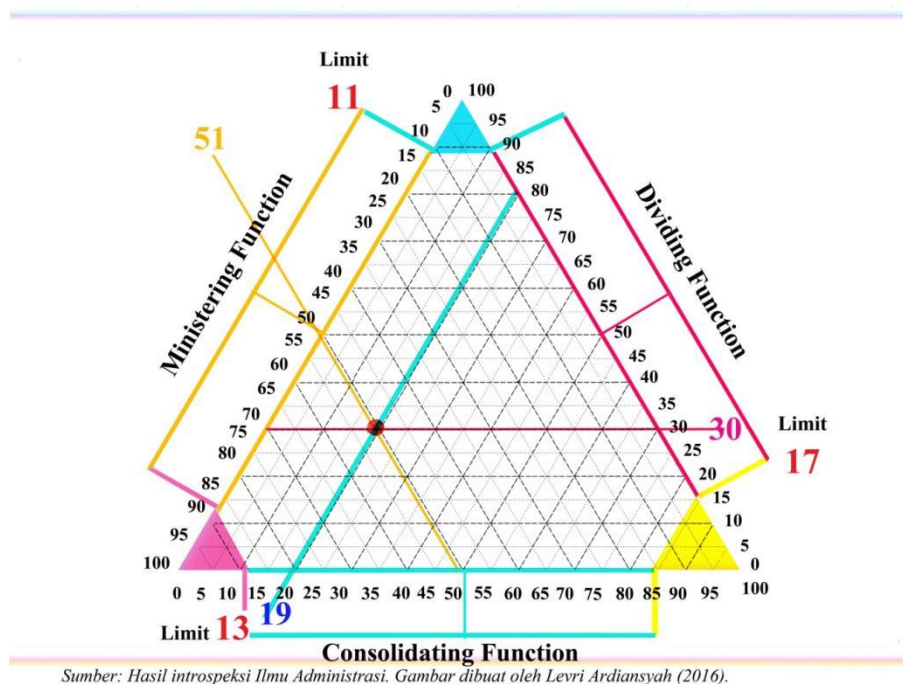
Batas Komposisi
Batas Rendah (*Low Ray*) Segmen Ministrasi
Pola pikir menentukan komposisi administrasi:

1. Terhadap garis *collinear* kuning:
   Semakin tinggi *administer* akan menyebabkan *divide* semakin rendah dan begitu juga dengan *deposite* akan semakin rendah. Hal ini berarti semakin besar pengendalian malah menyebabkan proses pembagian terhambat dan proses *deposite* juga semakin kecil. Agar proses *divide* juga berkembang dan proses *deposite* juga kian meningkat, maka fungsi *administer* harus berada pada koordinat 51 hingga 53;
2. Terhadap garis *collinear* biru:
   Semakin tinggi fungsi *deposite* akan menyebabkan proses *divide* semakin rendah dan proses *administer* semakin tinggi, artinya proses *divide* bisa jadi gagal ditambah lagi pengendalian *administer* semakain ketat, sehingga optimalisasi fungsi *deposite* yang berdampak signifikan terhadap proses *divide* dan *administer,* harus berada pada koordinat 51 hingga 53;
3. Terhadap garis *collinear* ungu:
   Semakin tinggi fungsi *mitre,* akan menyebabkan proses pelayanan semakin rendah dan *unitized* juga semakin rendah, sehingga fungsi *mitre* juga harus berada pada kisaran koordinat 51-53.

Berdasarkan pola pikir ini, didapat komposisi seperti ini:
a
Administer 51, *Deposite* 19 dan *Divide* 30

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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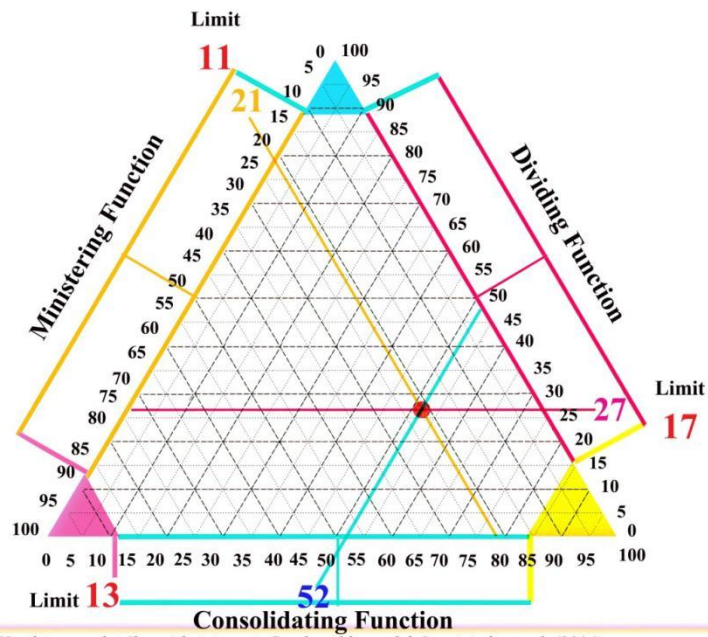
Unitized 52, *Divide* 27 dan *Serve* 21

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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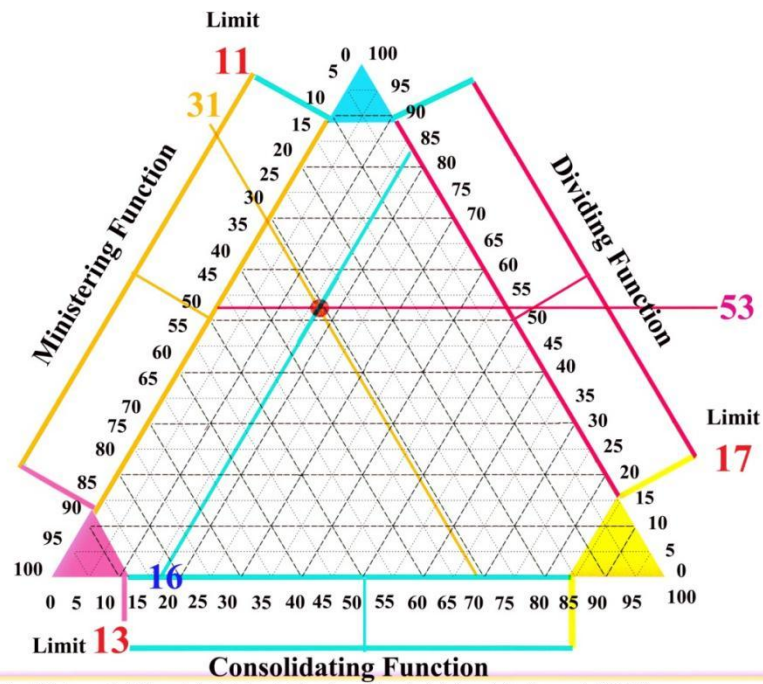
Mitre *53, Service* 31 *Deposite* 16

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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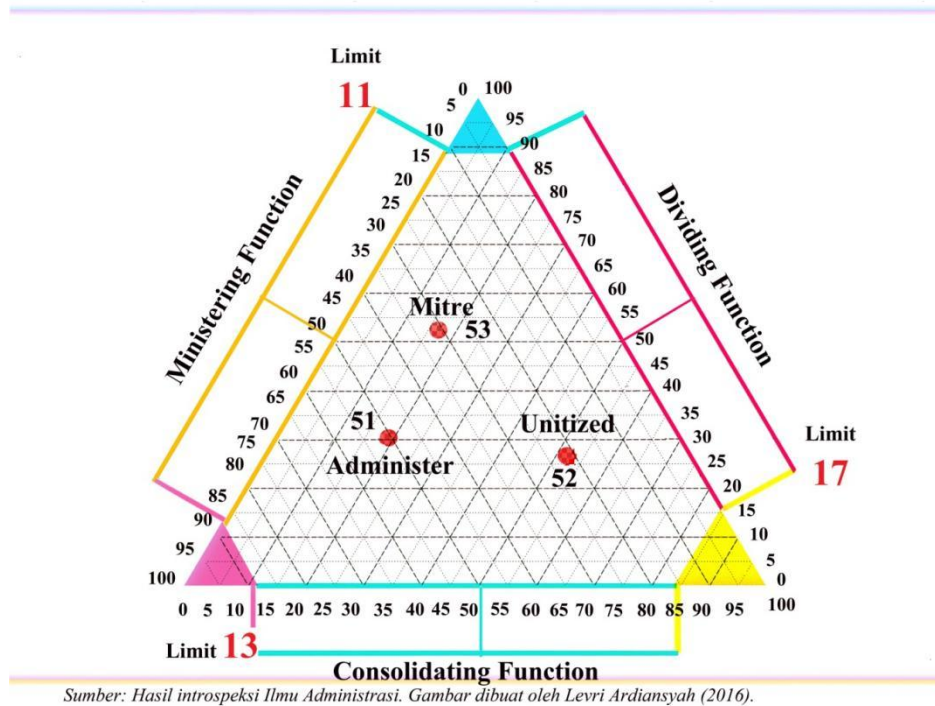
Peningkatan maksimal (optimal) *unitized* dan *mitre* tetap memerlukan *serve*. Ternyata urutannya *administer* 51, *unitized* 52 dan *mitre* 53.

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Terhadap fungsi *serve,* batas minimal berada pada porsi 11, artinya fungsi *serve* tidak diperkenankan berada pada porsi kurang dari atau sama dengan 11.

Terhadap fungsi *deposite,* batas minimal berada pada porsi 13 dan terhadap fungsi *divide* batas minimal berada pada porsi 17. Dengan begini, didapat *limit* 11, 13 dan 17.

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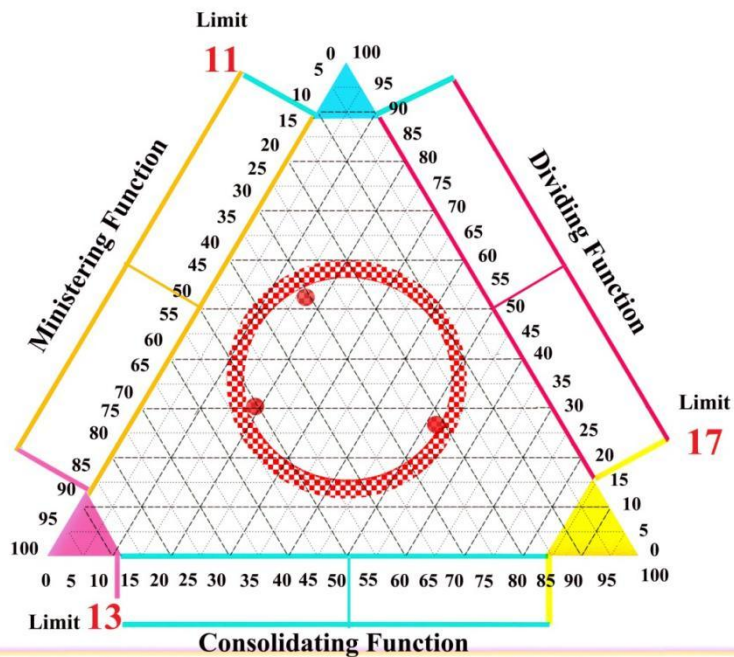
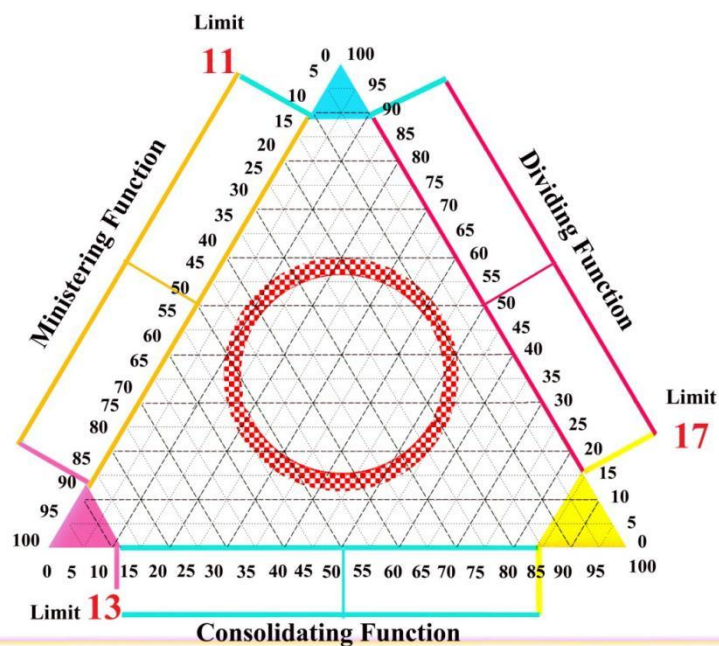

Lokasi administrasi merupakan *null set* yang berada di persimpangan tengah segitiga dengan luas *figure* seperti ini:

Administration Null Set Figure

Gambar Figur Lingkaran Administrasi (Administration Null Set Figure)

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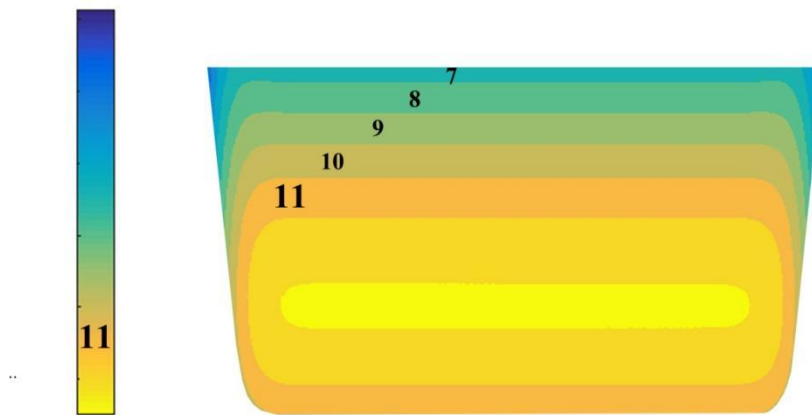
Batas Rendah (*Low Ray*) Segmen Ministrasi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Gambar Batas Rendah (Low Ray) Segmen Ministrasi

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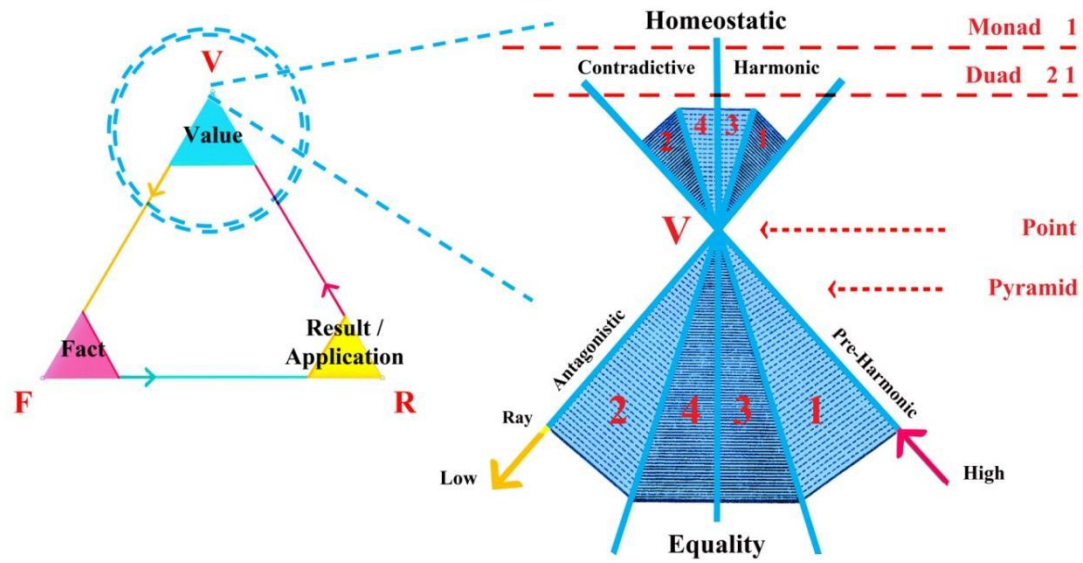
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).
Gambar piramida biru berdasarkan Hart, C.A. & Feldman, Daniel D. 1911:350. Plane and Solid Geometry.

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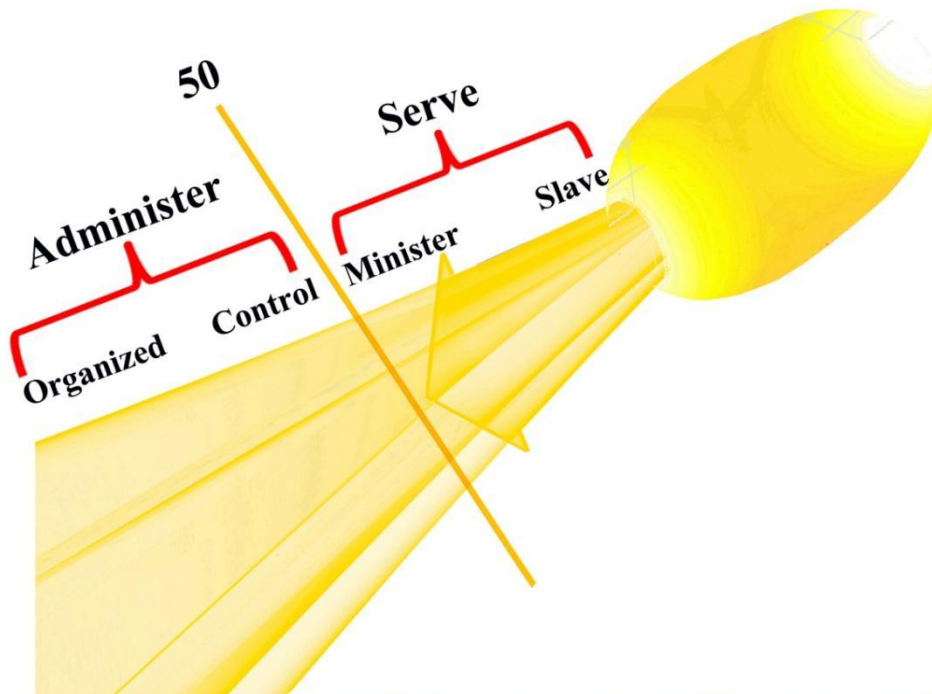
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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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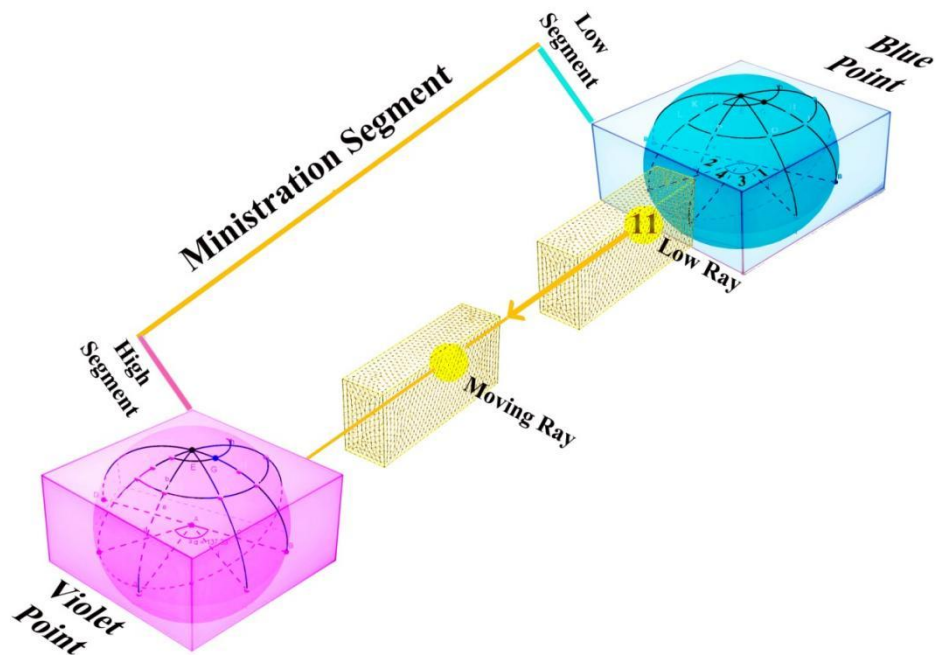
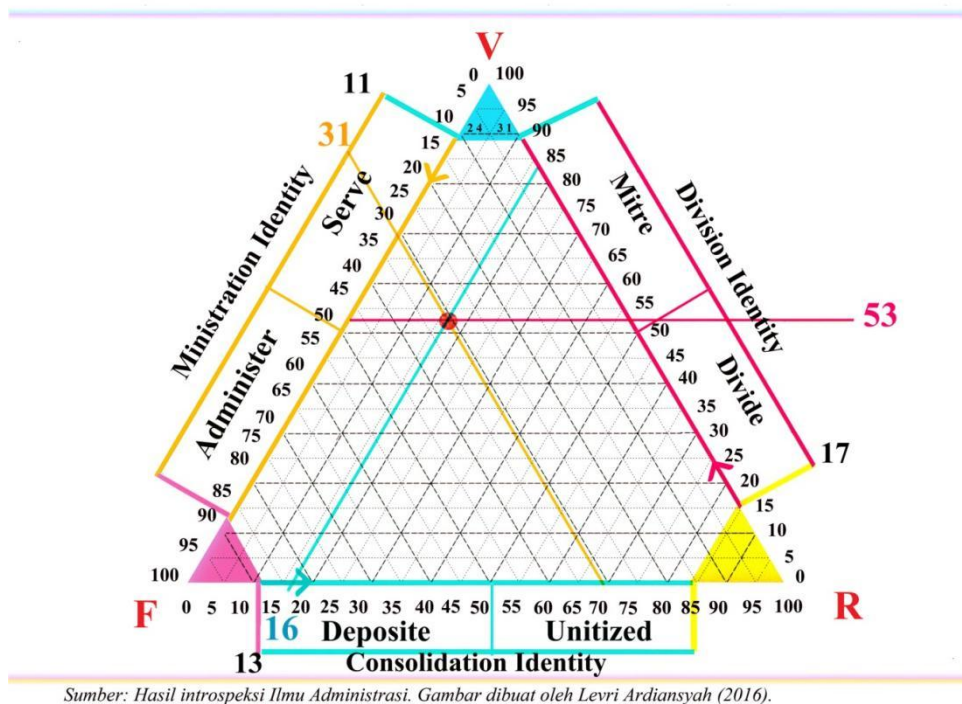
Koordinat 11 sebagai Batas Rendah (*Low Ray*) pada Segmen Ministrasi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

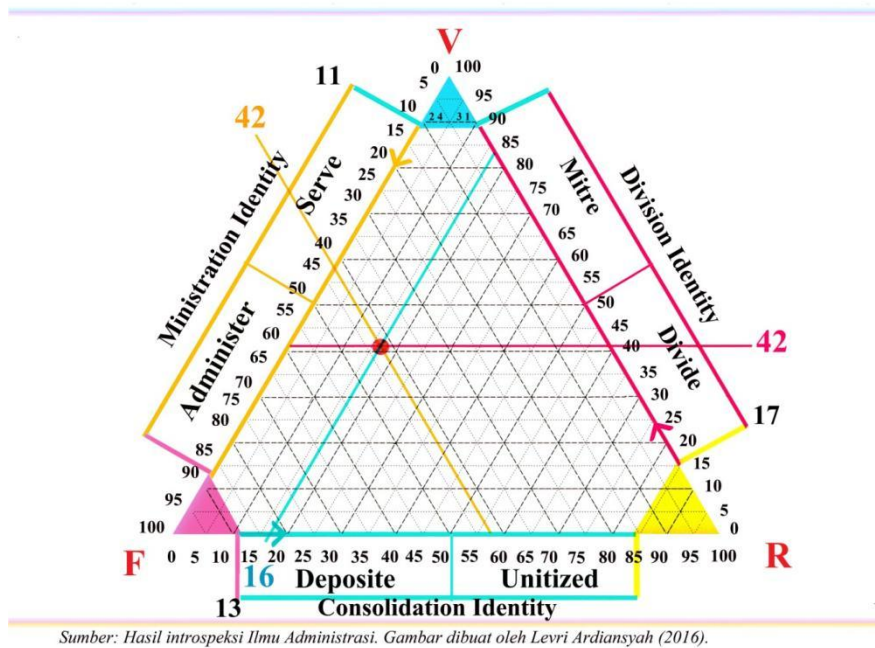
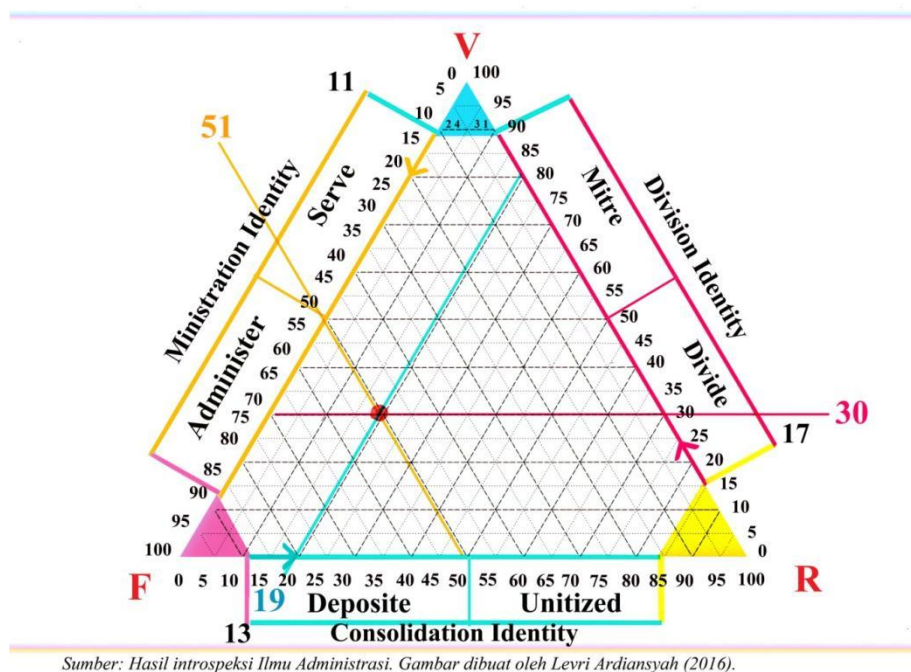
Gambar Koordinat 11 sebagai Batas Rendah (Low Ray) pada Segmen Ministrasi
a

Komposisi Administrasi

Komposisi administrasi terdiri dari 11 koordinat yang merupakan hasil interaksi fungsi dan operasi pada satu identitas administrasi dengan fungsi atau operasi yang terdapat pada kedua identitas administrasi lainnya.

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

a

Service 31 *Deposite* 16 *Mitre* 53

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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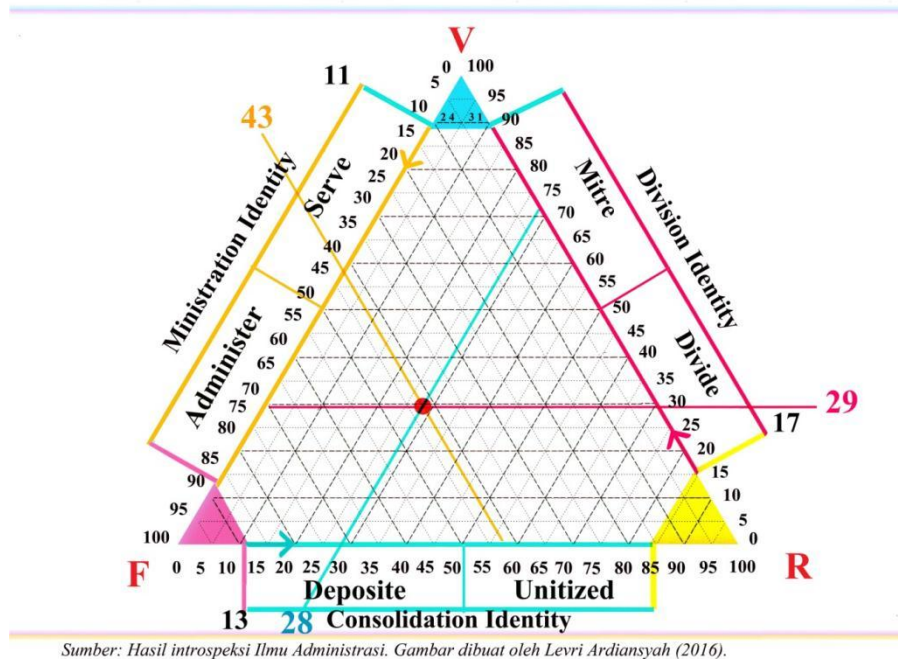
Service 43, *Deposite* 28, dan *Divide* 29

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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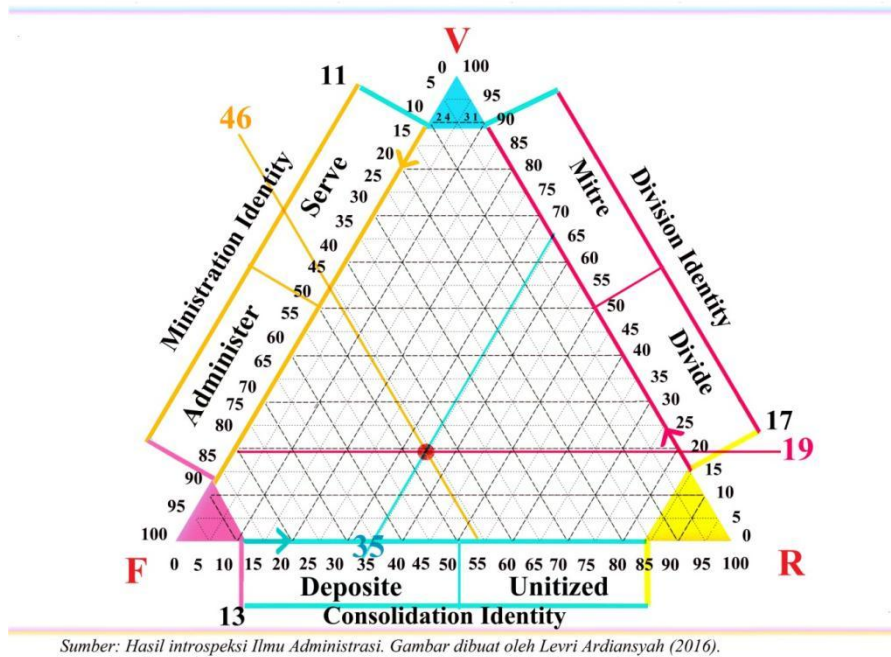
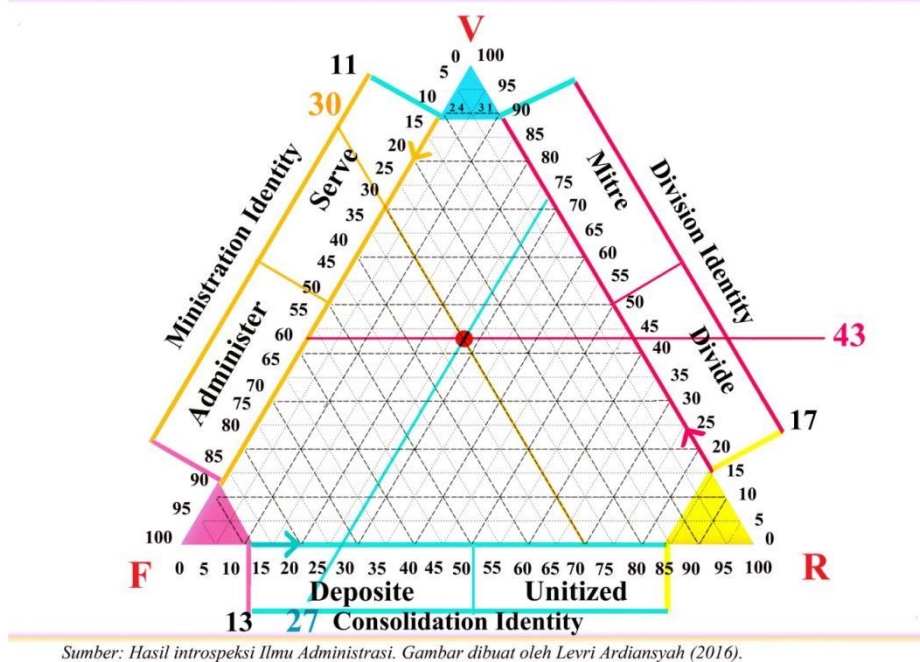
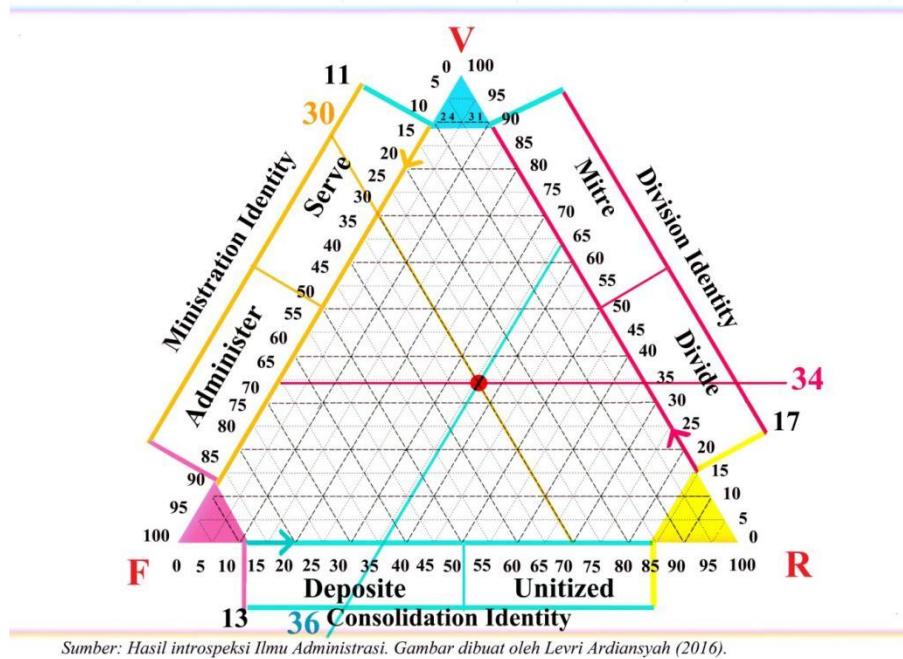
Service 46, *Deposite* 35, dan *Divide* 19

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

a

Service 30, *Deposite* 27, dan *Divide* 43

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

A

Service 30, *Deposite* 36, dan *Divide* 34

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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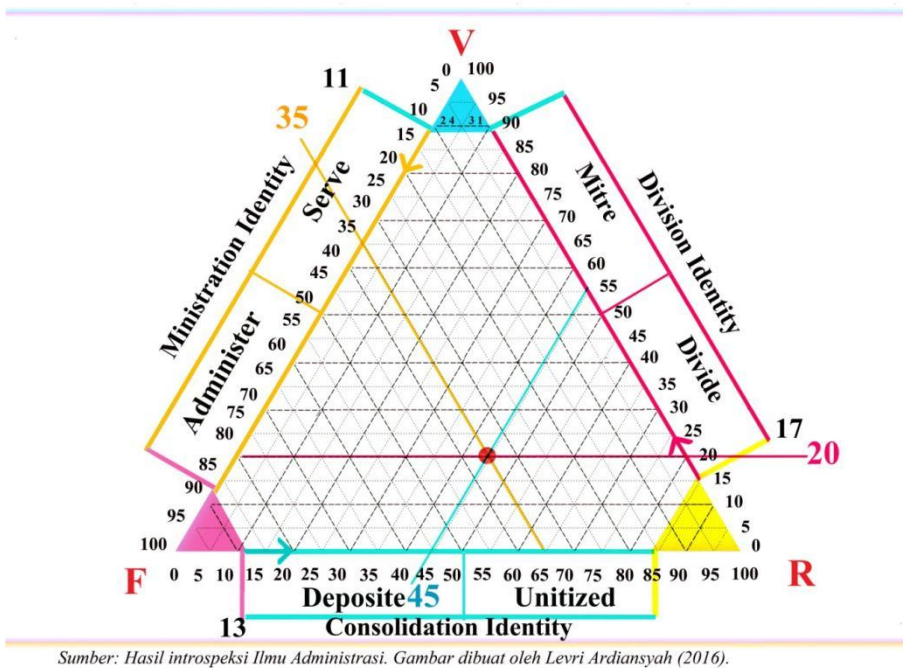
a

Deposite 45, *Serve* 35 dan *Divide* 20

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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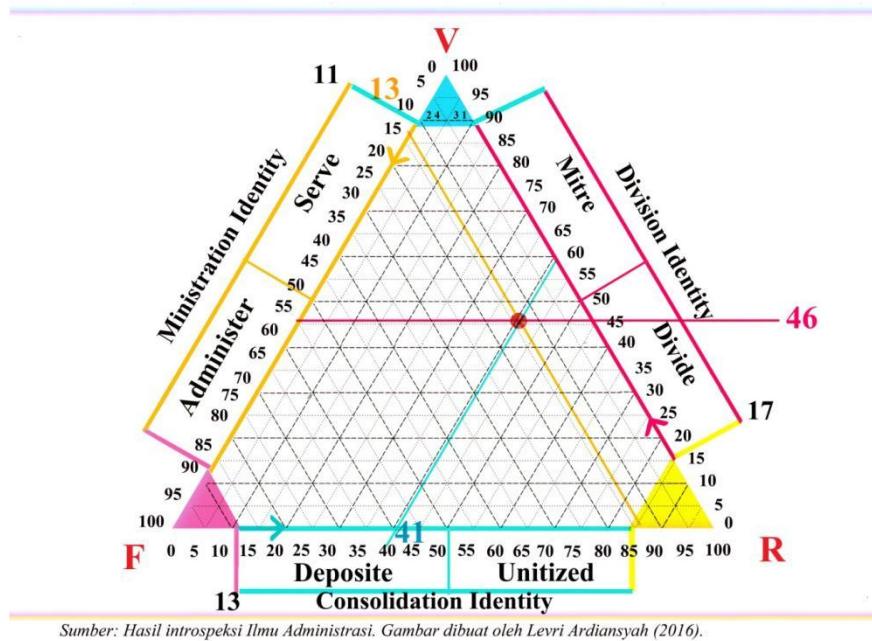
Service 13, *Deposite* 41, dan *Divide* 46

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

a

a

Hanya *administer* yang dioptimalkan tanpa pelayanan.

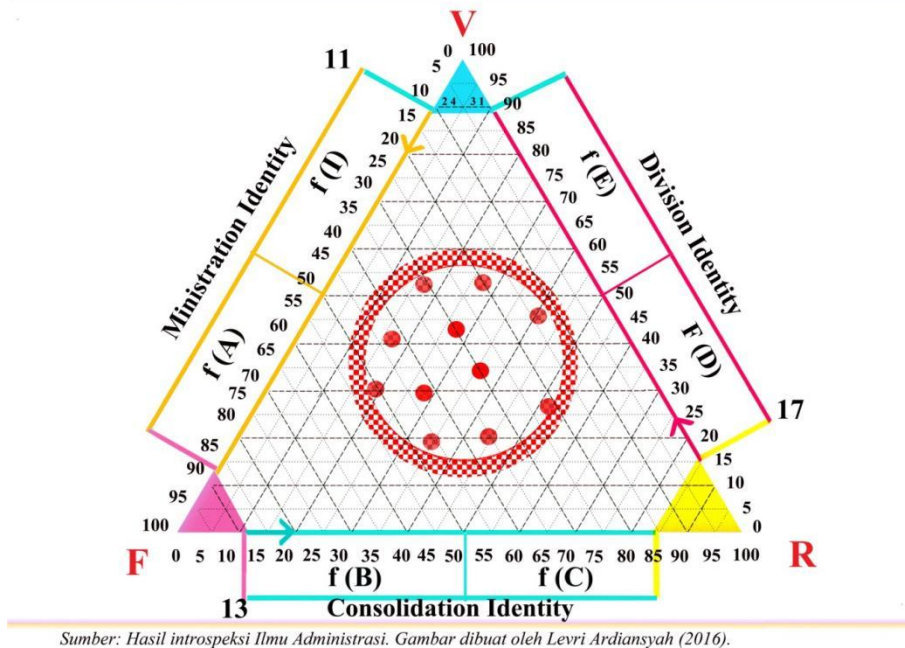
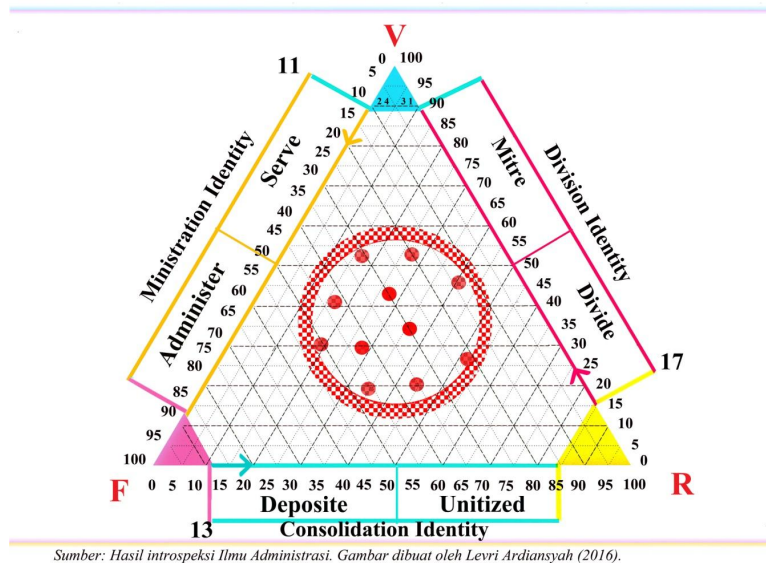
A

Diagram Komposisi Administrasi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

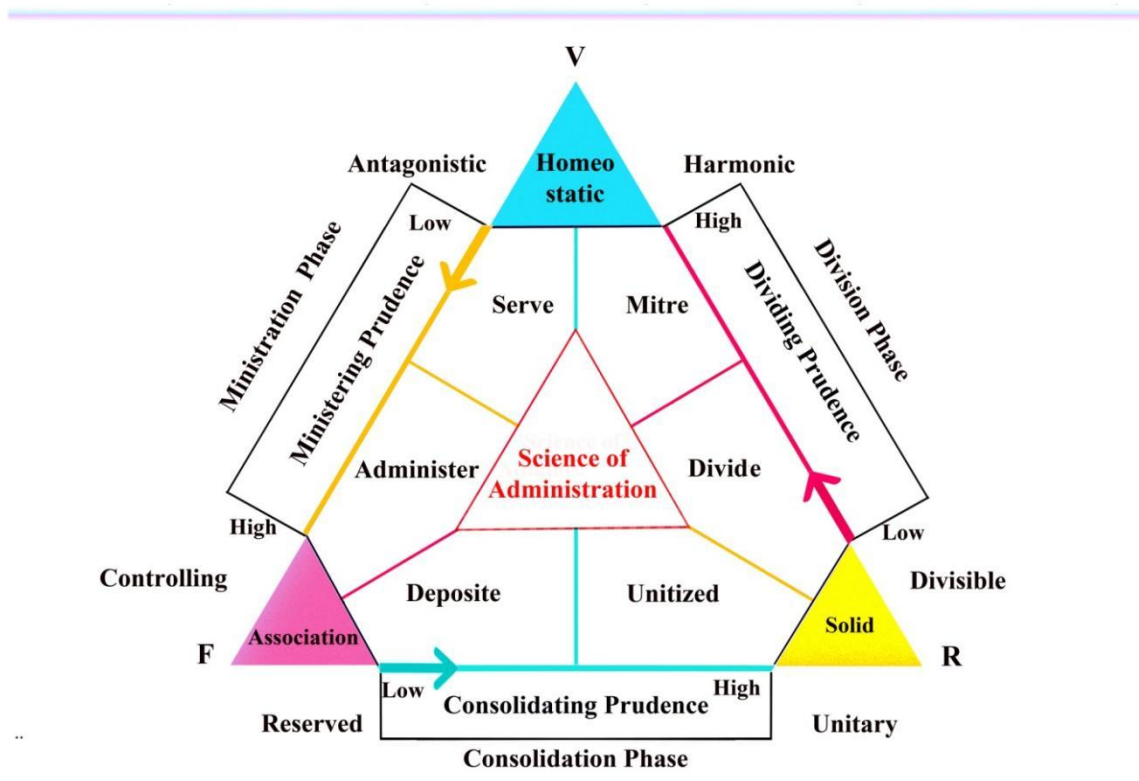
A

A

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

a

Simpulan

Diagram Administrasi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

The origin of administration is order?.
Fakta keteraturan administrasi terdapat pada fakta asosiasi administrasi.
Fakta asosiasi administrasi merupakan fakta fisik dan material yang dapat dibuktikan secara ilmiah sebagai fakta administrasi.
Fakta asosiasi administrasi memiliki data berupa: pelayanan, pengendalian, deposisi, penyatuan, pembagian dan padu (*solid*).
a

Administration as an Association

Prinsip-Prinsip Logika pada *The Origin of Administration*

Penolakan saya tentang definisi administrasi adalah kerjasama, yang saya nyatakan pada kalimat '*administration is not cooperation*' tentu saja merupakan suatu *judgment* yang *attribute*-nya berupa penolakan kebenaran *cooperation* sebagai definisi *administration.* Disini, definisi tentang administrasi merupakan subjek. Kalimat pernyataan yang padanya terdapat *judgment, attribute* dan *subject* ini merupakan contoh *principles of logic* yakni tindakan yang terjadi pada proses berpikir berupa menerima sesuatu kebenaran (*truth*) atau menolak sesuatu lainnya (*erroneous*) merupakan uraian tentang *logic* yang dikenal sebagai *judgment* yakni pernyataan penerimaan maupun penolakan kebenaran tentang sesuatu. Kebenaran yang diterima maupun kebenaran yang ditolak ini dinamai sebagai *attribute,* sedangkan sesuatu yang dicari kebenarannya dinamakan sebagai *subject.* Jika saya ingin mengemukakan pernyataan yang netral, tidak tegas menyatakan penerimaan maupun tidak tegas menyatakan penolakan, maka tindakan saya ini merupakan *simple apprehension.* Contohnya dapat saya rumuskan pada kalimat '*Administration as cooperation*' bukan '*Administration is cooperation*'. Dengan menggunakan kata '*As*' atau 'Sebagai' berarti saya tidak membatasi pengertian administrasi melainkan menjelaskan administrasi sebagai suatu kerjasama. Jika saya bersikap netral terhadap definisi administrasi, maka netralitas ini menjadikan administrasi tidak dapat dinyatakan salah, sebagaimana tidak dapat juga dinyatakan benar, sehingga sikap netral terhadap definisi administrasi sama saja menjadikan administrasi hanya sebagai kamus, karena *dictionary is never false or true.* Upaya merumuskan konsepsi ilmiah dan teori untuk membangun Ilmu Administrasi takkan pernah termulai.

Saya memahami *logic* merupakan proses emosi untuk memperoleh kebenaran, dimulai dari pengalaman subjektif, berpikir, berperasaan dan bertindak dengan cara membuat pernyataan. Pada buku karya Joyce, George Hayward (1916:1) berjudul '*Principles of Logic. Second Edition*' (London: Longman, Green and Co) tercetak '*Logic may be defined as the science which directs the operations of the mind in the attainment of truth*'. Kebenaran sendiri merupakan keterhubungan terhadap realitas (*An assertion is said to be true when itcorresponds to the reality of which the assertion is made,* Joyce, George Hayward, 1916:1). .
a

Prof. Riggs pernah mengemukakan pertanyaan '*How can one associate the administrative system of three such different coutries?*' dan menjawabnya sendiri pada 3 tulisannya berjudul (1) '*American Administration: An Ecological View';* (2) '*Thailand: Reflections on the Traditional Ecology*' dan (3) '*Administratie Change in the Philippines and Thailand*'. Pada buku karya Riggs, F.W. (1961: v) berjudul '*The Ecology of Public Administration'* (Bombay – Calcutta – New Delhi – Madras – London – New York: Asia Publishing House) tercetak:

In the three lectures on "The Ecology of Public Administration", which are published in this monograph, Prof. Riggs successively deals with "American Administration : An Ecological View"; "Thailand : Reflections on the Traditional Ecology"; and "Administrative Change in the Philippines and Thailand". He examines in detail the administrative ecology of the latter two countries in the context of their transitional phase from an agrarian to an industrial society, and against the wider background of a multiplicity of sociological, political and institutional factors. Prof. Riggs' new administrative model, called the "Prismatic Society", is certainly an interesting attempt to improve our previous conceptual framework for understanding the dynamics of administration in developing and semi-developed economies, though one may not necessarily agree with all the characteristics he identifies. The application of model-building to administration has just begun and as it gets more refined and varied it will not only help in a rethinking of basic administrative concepts and principles in their application to a parti-

v

Sumber: Riggs, F. W. 1961: v. The Ecology of Public Administration. Bombay – Calcutta – New Delhi – Madras – London – New York: Asia Publishing House. Gambar disajikan oleh Levri Ardiansyah (2017).

Meski beberapa kolega dosen mengkritisi bahwa ketiga negara itu '*not comparable*' karena masing-masing unik sehingga hanya dapat dipelajari melalui pendekatan terhadap masing-masing negara sebagai *sui generis* (yakni *unique* atau *of its ownn kind*). Pada buku karya Riggs, F.W. (1961: 1) berjudul '*The Ecology of Public Administration'* (Bombay – Calcutta – New Delhi – Madras – London – New York: Asia Publishing House) tercetak:

CHAPTER I

AMERICAN ADMINISTRATION: AN ECOLOGICAL VIEW

I HAVE been asked to speak rather informally about administration in the United States, Thailand and the Philippines; the United States because it is my own country, Thailand and the Philippines because I have just come from a visit of one year in each of these Southeast Asian countries.*

How can one associate the administrative systems of three such different countries? Some of my colleagues would surely say that they are not "comparable"; each is distinctive and unique to such an extent that it can only be studied or approached as something apart, as *sui generis*. Yet I think that we can find common elements in these three countries, or at least common variables, in terms of which they can be compared, just as we can compare, for example, an automobile and a bicycle in terms of their price.

Sumber: Riggs, F. W. 1961: 1. The Ecology of Public Administration. Bombay – Calcutta – New Delhi – Madras – London – New York: Asia Publishing House. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Serbati, Antonio Rosmini (1883: 230) berjudul '*The Origin of Ideas. Vol. II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak '*The essence, therefore, is what we think in any idea*'. Kutipannya tergambar seperti ini:

ARTICLE V.

***Distinction between the idea of* substance *and that of* essence.**

§ I.

Definition of essence.

646. I call *Essence* that which is contained in any idea whatsoever.

The idea is the thing in so far as conceived by our mind in a state of pure possibility; but if this same possible thing, instead of being considered in relation to the mind which conceives it, is considered in its own self, then it is the *essence*. The essence, therefore, is what we think in any idea.

Sumber: Serbati, Antonio Rosmini. 1883: 223. The Origin of Ideas. Vol. II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Berdasarkan tulisan Rosmini tentang definisi *essence* ini, dapat saya interpretasi bahwa esensi administrasi merupakan pemikiran tentang administrasi, khususnya nama administrasi. Pada buku karya Serbati, Antonio Rosmini (1883: 144) berjudul '*The Origin of Ideas. Vol. 1II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak '*When we want to know the "essence" of anything, we indicate that thing by a name ...*'. Kutipan lengkapnya tergambar seperti ini:

CHAPTER VI.

ON THE KNOWLEDGE OF ESSENCES.

ARTICLE I.

In what sense we are said to know the essences of things.

1213. *Essence* is what we think in the idea of a thing (646).

We therefore know as many *essences* as there are things of which we have some idea.

To say that essences are known to us in this sense is strictly in accordance with propriety of language, as may be easily seen by the following observation.

When we want to know the 'essence' of anything, we indicate that thing by a name, saying for example, *tree*, *man*, *colour*, *size* etc., according to the thing whose essence we seek to discover. Now why have names been given to things? Purely 'to signify what they are in so far as known to us' (679). If then anyone were to take these names in a more extended signification than this, he would be making a wrong use of them, in fact he would be talking nonsense. Clearly, then, to seek to know the essence of a thing, is nothing else than to examine what meaning or idea men have attached to the name by which the thing is called. To proceed otherwise, would be to seek for the essence, not of that, but of some other thing not named, unknown, and about which therefore this inquiry would not even be possible.

Sumber: Serbati, Antonio Rosmini. 1883: 144. The Origin of Ideas. Vol. 1II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

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Merunut pemikiran pemikiran Dugald Stewart yang mendefinisikan '*the essence of individual*' seperti tercetak pada buku karya Serbati, Antonio Rosmini (1883: 151) berjudul '*The Origin of Ideas. Vol. 1II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) terbaca bahwa '*... the essence of an individual is nothing more than the particular quality or qualities in which it resembles other individuals of the same class; and in consequence of which a generic name is applied to it*'. Kutipannya tergambar seperti ini:

180. There are many other reflections to be made upon the passage I have quoted from Dugald Stewart.

In the first place, I beg the reader to consider how he defines the essence of an individual: 'The essence of an individual,' he says, 'is nothing more than the particular quality or qualities in which it resembles other individuals of the same class; and in consequence of which a generic name is applied to it' (*Elements of the Philosophy of the Human Mind*, ch. iv. sec. 2, p. 173; London ed. 1811).

The singular thing in this definition is, that no one can disagree with it, and I am full sure that Plato himself would not have anything to add thereto. This simply means that the question of which it professes to speak has been passed over.

181. It is true that we do not see in it the words *universals, general ideas*, and such like; but what I maintain is, that the sense which these words express is there all the same, and that our philosopher, therefore, by formulating the definition in this way has not by any means eliminated universals from philosophy, but has only avoided indicating them by their proper name, as though he were afraid of it.

182. To see how this is, I will take the liberty of asking the reader to tell me what he conceives to be the real meaning of that phrase used by Dugald Stewart, 'the quality in which one individual resembles other individuals.'

Possibly I may be answered that this is an idle question, inasmuch as everybody understands what it is for 'one thing to resemble another.' Well, I also believe that everybody understands it, and for this reason I think it must be easy to define what similarity is.

When anyone says 'two or more things resemble one another,' he means something less than if he said, 'two or more things are equal.' For things cannot be called equal unless

Sumber: Serbati, Antonio Rosmini. 1883: 151. The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

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5

World and the Laws of Association

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The Laws of Association

Pemikiran Filosofis Pythagoras

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Pithagoras (c. 570 – c. 495 BC) memandang manusia sebagai angka yang ditunjukan pada jumlah jari jemari kaki sebanyak 10 dan karenanya Pythagoras merefleksikan *human order* sebagai *equality* dari *a fundamental relation* yang beliau jelaskan dalam geometri sebagai '*Pythagoras theorem'*. Pythagoras telah menghasilkan sejumlah rumus (*set of formulae*) yang menjelaskan aksi yang teratur pada angka berikut keteraturan pada kombinasi angka dan teori Pythagoras ini telah merangsang munculnya pemikiran dari para filsuf lainnya tentang keteraturan tindakan manusia dengan pertanyaan mendasar '*what is human action'* yaitu apakah adanya keteraturan pada angka juga merefleksikan adanya keteraturan yang sistematis pada tindakan manusia dalam interaksinya dengan manusia lain. Dalam kalimat tanya lain, 'apakah keteraturan angka dapat menjadi landasan berpikir dalam merefleksikan keteraturan tindakan manusia?' dan apakah keteraturan angka dapat membantu merumuskan '*what is ought to*' yaitu apa yang seharusnya terjadi agar interaksi manusia menjadi teratur.

PYTHAGORAS.
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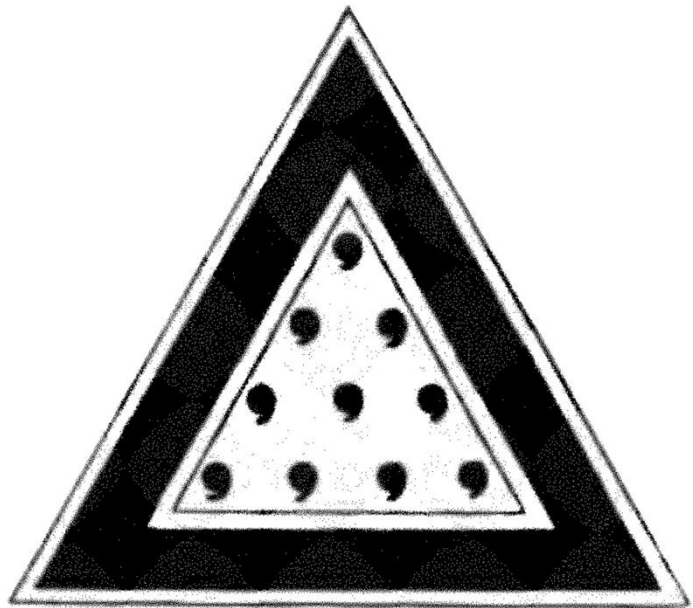
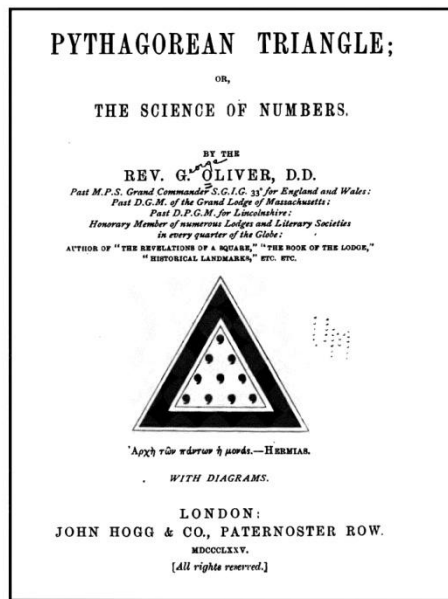
Sumber: Oliver, George. 1875. The Pythagorean Triangle: Or the Science of Numbers. London: John Hogg & CO., Paternoster Row.Reprint by Forgotten Books, London (2013). Gambar dibuat oleh Levri Ardiansyah (2016).

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PYTHAGOREAN TRIANGLE;

OR,

THE SCIENCE OF NUMBERS.

BY THE

REV. G. OLIVER, D.D.

Past M.P.S. Grand Commander S.G.I.G. 33° for England and Wales:
Past D.G.M. of the Grand Lodge of Massachusetts:
Past D.P.G.M. for Lincolnshire:
Honorary Member of numerous Lodges and Literary Societies
in every quarter of the Globe:

AUTHOR OF "THE REVELATIONS OF A SQUARE," "THE BOOK OF THE LODGE," "HISTORICAL LANDMARKS," ETC. ETC.

Ἀρχὴ τῶν πάντων ἡ μονάς.—HERMIAS.

WITH DIAGRAMS.

LONDON:
JOHN HOGG & CO., PATERNOSTER ROW.
MDCCCLXXV.

Sumber: Oliver, George. 2013. The Pythagorean Triangle: Or the Science of Numbers. London: Forgotten Books. (Original work published 1875). Gambar diolah oleh Levri Ardiansyah (2016).

a

TABLE OF CONTENTS.

Sumber: Oliver, George. 2013. The Pythagorean Triangle: Or the Science of Numbers. London: Forgotten Books. (Original work published 1875). Gambar diolah oleh Levri Ardiansyah (2016).

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Pada intinya segitiga Pythagorean terdiri dari 10 poin, 4 poin pada garis tepi B, diteruskan dengan tambahan 3 poin pada garis tepi C dan 2 poin lagi pada garis tepi A sehingga jika dilihat per garis tepi akan tampak seperti 4 poin pada setiap garis tepi, 2 poin adalah awal akhir dan 2 poin diantaranya adalah bagian.

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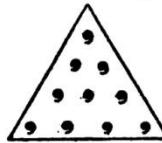
Thus, in the celebrated Pythagorean triangle, consisting of ten points, the upper single dot or jod is monad or unity, and represents a *point*, for Pythagoras considered a point to correspond in proportion to unity; a *line* to 2; a *superfice* to 3; a *solid* to 4; and he defined a point as a monad having position, and the beginning of all things; a line was thought to correspond with duality, because it was produced by the first motion from indivisible nature, and formed the junction of two points. A superfice was compared to the number three, because it is the first of all causes that are found in figures; for a circle, which is the principal of all round figures, comprises a triad, in centre—space—circumfer-

Sumber: Oliver, George. 2013:18. The Pythagorean Triangle: Or the Science of Numbers. London: John Hogg & Co, Paternoster Row. Gambar dibuat oleh Levri Ardiansyah (2016).

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Pythagoras (569–500 B.C.), one of the most famous mathematicians of antiquity, was born at Samos. He spent his early years of manhood studying under Thales and traveled in Asia Minor and Egypt and probably also in Babylon and India. He returned to Samos where he established a school that was not a great success. Later he went to Crotona in Southern Italy and there gained many adherents. He formed, with his closest followers, a secret society, the members of which possessed all things in common. They used as their badge the five-pointed star or pentagram which they knew how to construct and which they considered symbolical of health. They ate simple food and practiced severe discipline, having obedience, temperance, and purity as their ideals. The brotherhood regarded their leader with reverent esteem and attributed to him their most important discoveries, many of which were kept secret.

PYTHAGORAS

Pythagoras knew something of incommensurable numbers and proved that the diagonal and the side of a square are incommensurable.

Sumber: Hart, C.A. & Feldman, Daniel D. 1911.:234 Plane and Solid Geometry. New York: American Book Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Ilmu Administrasi memiliki *incommensurable* yang irasional, dan inilah yang membedakan Ilmu Administrasi dengan Ilmu Fisika dan Matematika, meski fakta administrasi didasarkan pada Ilmu Fisika dan teori administrasi didasarkan pada Matematika.

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Plato: The Two Laws of Association

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787. Historical Note. Plato (429–348 B.C.) was one of the first to discover a solution to that famous problem of antiquity, the *duplication of a cube*, *i.e.* the finding of the edge of a cube whose volume is double that of a given cube.

PLATO

There are two legends as to the origin of the problem. The one is that an old tragic poet represented King Minos as wishing to erect a tomb for his son Glaucus. The king being dissatisfied with the dimensions (100 feet each way) proposed by his architect, exclaimed: "The inclosure is too small for a royal tomb; double it, but fail not in the cubical form."

The other legend asserts that the Athenians, who were suffering from a plague of typhoid fever, consulted the oracle at Delos as to how to stop the plague. Apollo replied that the Delians would have to double the size of his altar, which was in the form of a cube. A new altar was constructed having its edge twice as long as that of the old one. The pestilence became worse than before, whereupon the Delians appealed to Plato. It is therefore known as the Delian problem.

Sumber: Hart, C.A. & Feldman, Daniel D. 1911:365. Plane and Solid Geometry. New York: American Book Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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The Two Laws of Association

In discussing the reason, Plato held that the knowledge awakened in the mind—all learning and research—comes by a "reminiscence" (ἀναμνησις[1]) from some earlier existence. He formulated the two laws of association, known as "resemblance" and "contiguity," to explain the play of ideas.

Sumber: Baldwin, James Mark. 1913:57. History of Psychology A Sketch and an Interpretation. Vol. 1. London: Watt & CO. Gambar dibuat oleh Levri Ardiansyah (2016)

Aristotle: The Three Laws of Association

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Warren (1921:027) dalam bukunya berjudul '*A History of the Association Psychology*' menulis bahwa pemikiran utama Aristotle yang berpengaruh terhadap Psikologi adalah tentang *act of recollection* yang tergantung pada *sequence of mental processes.* Merunut tulisan Warren, *mental processes* memang selalu mengambil bentuk berupa rangkaian (*series or train*) diantaranya adalah *serial association* yang mengarah kepada koneksi yang perlu (*necessary connection*) sedangkan yang lainnya hanya terjadi karena merupakan kebiasaan bersama (*together habitually*) sebagai *habitual connection. The series* ini terjadi dimulai dari pengalaman saat ini (*present experience*) dan anggota *the series* ini mengikuti anggota lainnya berdasarkan *similarity, contrast and contiguity.* Tulisan Warren ini dapat dibaca pada gambar berikut:

ARISTOTLE **27**

The conception of association developed in this remarkable passage covers a broader field than the mere act of recollection which it seeks to explain. Aristotle's main contentions may be restated in more modern form as follows: In accounting for recollection we should observe that it depends on the *sequence* of mental processes. Mental processes always take the form of a series, or train. Their serial association is due in some cases to a *necessary* connection, in others merely to their occurring together *habitually*. Habitual connection brings about actual association in most cases, but not always. Its power to do so varies with the individual and the sort of experience. The series may start with present experience (sensation?) or with something besides present experience. Its members follow one another according to similarity, contrast, or contiguity.[1]

Sumber: Warren, Howard C. 1921:027. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Warren (1921:028) juga menulis bahwa kontribusi pemikiran Aristotle yang kemudian pada abad ke-18 menjadi '*Theory of Successive Association*' dalam Psikologi, dapat dimengerti kebenarannya melalui 4 hal seperti ini: (1) bahwa rangkaian pengalaman kognitif bukan merupakan kesempatan, melainkan terjadi melalui proses yang jelas pada rangkaian fakta alamiah; (2) kebiasaan merupakan faktor yang penting dalam menentukan asosiasi; (3) Aristotle memberi petunjuk yang jelas tentang asosiasi yaitu *similarity, contrast* dan *contiguity;* dan (4) bahwa hukum yang sama yang mengendalikan pemikiran tertentu berlangsung dalam alir pemikiran yang spontan. Tulisan Warren ini dapat dibaca pada gambar ini:

Aristotle's contribution to the theory of successive association, if this interpretation be correct, is fourfold. (1) He was the first to point out clearly that the sequence of cognitive experiences is not mere chance, but occurs through a definite process of natural association. (2) He recognizes habit as an important factor in determining association—subject, however, to individual variations. (3) Most important of all, he specifies the three principles of similarity, contrast, and contiguity as the sole bases of 'habitual' associative connection. (4) He declares that the same laws hold in purposive thinking as in the spontaneous flow of thought.

Sumber: Warren, Howard C. 1921:028. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Three Laws of Association

For the co-ordination of the various sensations and their formation into true perceptions, Aristotle supposed a "common sense," located in the heart. It is also by the common sense that images arise and become memories, dreams, and fancies. These images in their revival follow three laws of association: "contiguity," "resemblance," and "contrast." It is in the common sense, moreover, that the judgment of things as true or false takes place, and the common "sensible qualities" —motion, number, shape, size—are attributed to things. The common sense gives unity to consciousness itself.

Sumber: Baldwin, James Mark. 1913: 64-65. History of Psychology A Sketch and an Interpretation. Vol. 1. London: Watt & CO. Gambar dibuat oleh Levri Ardiansyah (2016)

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Baldwin (1901:6) dalam bukunya berjudul '*Dictionary of Philosophy and Psychology.Volume 2'* mengemukakan definisi *resemblance* dalam perspektif Psikologi seperti ini:

Likeness or **Resemblance** (consciousness of) [AS. *lic*, in *gelic*, like]: Ger. *Aehnlichkeit*; Fr. *ressemblance*; Ital. *somiglianza*, or *rassomiglianza*. Two mental objects or contents are said to be alike for consciousness when in respect to certain features one might be taken for the other. This is hit off in the current conundrum: 'What is most like a rain-drop?' Answer: 'Another rain-drop.' Such objects are said to have likeness, to be alike, or to resemble each other.

Theories of likeness are based on partial identity of the two mental contents (cf. RESEMBLANCE); partial recognition of one in the other; partial assimilation of one to the other, or of both to a third: or on an active adjustment to one which holds also in part for the two. The last of these views, to which the writers adhere, is well summed up by Ward: 'Presented objects become related as "like" either in virtue of the active adjustment to a change of impression which their partial assimilation defeats, or in virtue of an anticipated continuance of the impression which this assimilation confirms' (art. Psychology, in *Encyc. Brit.*, 9th ed., xx. 180). Cf. the classification given under RESEMBLANCE, and the topics there referred to.

The case in which two things are alike in all respects—are taken one for the other—is mentioned under INDISCERNIBLES, and DIFFERENCE. (J.M.B.—G.F.S.)

Sumber: Baldwin, James Mark. 1901:6. Dictionary of Philosophy and Psychology.Volume 2. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Baldwin (1901:6) dalam bukunya berjudul '*Dictionary of Philosophy and Psychology.Volume 2'* mengemukakan definisi *contiguity* dalam perspektif Psikologi seperti ini:

Contiguity (law of) [Lat. *con-* + *tangere*, to touch]: Ger. *Gesetz der Berührungsassociation*; Fr. *loi d'association par contiguité*; Ital. *legge dell' associazione di contiguità*. This law may be stated as follows: when presentations, or other associable contents of consciousness, occur simultaneously or in immediate sequence, the corresponding mental dispositions become associated. Cf. ASSOCIATION (of ideas). (G.F.S., J.M.B.)

Sumber: Baldwin, James Mark. 1901:224. Dictionary of Philosophy and Psychology.Volume 1. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Psychologically, the action of indices depends upon association by contiguity, and not upon association by resemblance or upon intellectual operations (Peirce, 1867) dalam Baldwin (1901:532).

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Association (in aesthetics). As an aesthetic principle, association is used to explain aesthetic value by deriving the pleasure felt in the presence of the beautiful or sublime, not directly from the form or constitution of the object as such, nor from the sensations it excites, but from the recall or revival of pleasure previously experienced in connection with the same or a related object or quality; e.g. a red cheek suggests youth and health, and is beautiful; red hands suggest disagreeable labour, and are ugly.

The principle of association has been used to explain either all or only a part of aesthetic value. Some writers have had in mind the accidental associations which individuals have formed in their particular experience; others, the universal relations of natural processes and qualities. Buffier (1724) and Reynolds (1759), in connection with the view that the beautiful in nature is a fixed form for each species toward which nature inclines—a sort of mean or average—and that the ugly is a departure therefrom, drew the conclusion that 'the effect of beauty depends on habit alone, the most customary form in each species of things being invariably the most beautiful.'

Sumber: Baldwin, James Mark. 1901:77. Dictionary of Philosophy and Psychology. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Association (of ideas) [Lat. *ad + socius*, companion]: Ger. (*Ideen-*) *Association*; Fr. *association* (*d'idées*); Ital. *associazione*. A union more or less complete formed in and by the course of experience between the mental dispositions corresponding to two or more distinguishable contents of consciousness, and of such a nature that when one content recurs, the other content tends in some manner or degree to recur also. (G.F.S.–J.M.B.)

Aristotle, in his treatise on *Memory and Reminiscence*, recognizes the principle of association, and distinguishes association by similarity, by contrast, and by contiguity. The doctrine is further explained and illustrated by ancient commentators on Aristotle and by the Schoolmen. In the period of the Renaissance, Ludovicus Vives is distinguished by his careful treatment of this topic. It occupies a very prominent place in the psychology of Hobbes. The phrase 'association of ideas' was first introduced by Locke; but he seems to have had no insight into its general psychological importance. Berkeley was the first to extend the principle of association so as to make it cover not merely the sequence of ideas in train, but also the formation of percepts and higher states. Hartley proceeds further in the same direction, and so becomes the founder of modern ASSOCIATIONISM (q. v.).

Literature: for a compact history of the subject see CROOM ROBERTSON, Philos. Remains, 102 f.; FERRI, La Psychol. de l'Assoc., is also historical; HOBBES, Leviathan, chap. iii, and Human Nature, chap. iv; SPINOZA, Ethics, Bk. II, Prop. xviii (applied in Bk. III to theory of emotion); HARTLEY, Observations on Man, *passim*; JAMES MILL, Anal. Phenom. Human Mind; BAIN, Senses and Intellect (4th ed.), 336–40, and the exceedingly detailed and instructive exposition which follows throughout the rest of the book; SPENCER, Princ. of Psychol., chaps. vii and viii, especially § 120; SULLY, Human Mind, i. 185–205; S. HODGSON, Met. of Experience, iii. chaps. i and ii; JAMES WARD, Encyc. Brit., xx. 60; JAMES, Princ. of Psychol., i. chap. xiv; FRIES, Neue Krit., 159; VOLKMANN, Lehrb. d. Psychol., i. 73–9; LIPPS, Grundthatsachen des Seelenlebens, Pt. II, chap. vi; KARL DEFFNER, Die Aehnlichkeitsassociation, in the Zeitsch. f. Psychol., xviii. Heft 3; WUNDT, Physiol. Psychol., ii. chap. xvi; Grundriss, 265 f.; STRICKER, Stud. ü. die Assoc.; TAINE, On Intelligence, Pt. I. Bk. II. chap. ii; FOUILLÉE, La Psychol. des idées-forces, i. Bk. III. chap. ii; BRADLEY, Stud. in Logic; VILLA, Psicol. Contemp. (1899). Also the textbooks cited under PSYCHOLOGY; EISLER, Wörterb. d. philos. Begriffe (for many quotations); and BIBLIOG. G, 2, *l*. (G.F.S.)

Sumber: Baldwin, James Mark. 1901:78. Dictionary of Philosophy and Psychology. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Association (social): Ger. *Association* (1), *Verein, Gesellschaft* (2); Fr. *association* (1), *compagnie* (2); Ital. *associazione*. (1) The spontaneous being together of creatures, in regular ways, without regard to the mental states which actuate them; that is, without regard to the presence or absence of CO-OPERATION (q. v.) on their part, or to its degree when present.

Association used in this sense is a sociological rather than a psychological term. It applies to social and gregarious life looked at by an outsider rather than as involving the recognition of it by the beings themselves. When used at all—it were better avoided altogether, unless qualified as 'social'; cf. AGGREGATION—it should be very carefully defined, seeing that one of the elements of conscious social and gregarious life is the association of ideas, a very different conception; and the confusion of the two is sometimes made. For example, Giddings (*Princ. of Sociol.*) contrasts psychology as the science of 'the association of ideas' with sociology as the science of 'the association of individuals.' For a direct working out, however, of an analogy between the two, see Bosanquet, *Philos. Theory of the State*, chap. vii.

Literature: see the titles given under SOCIOLOGY. (J.M.B., G.F.S.)

(2) An organization to promote an object or to realize a purpose, e. g. The British Association for the Advancement of Science, The American Psychological Association. Legalized or chartered associations are called Companies.

Rousseau first clearly distinguished between association and aggregation. In his *Contrat Social*, chap. v. § 1, he says of a society held together by force, 'c'est, si l'on veut, une agrégation, mais non pas une association.' 'In the situation of an ignorant labourer . . . associating with no one except his wife and his children, what is there that can teach him to co-operate?' (J. S. Mill, *Diss. and Discussions*, i. 193). This usage continually recurs with reference to all possible modes of friendly and useful association in the *Nicomachean Ethics* of Aristotle. (F.H.G.)

Sumber: Baldwin, James Mark. 1901:79. Dictionary of Philosophy and Psychology. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Wilkin (1903:142) dalam bukunya berjudul '*Control in Evolution, A Discussion of the Fundamental Principles of Social Order and Progress*' mencontohkan asosiasi pada asosiasi antara kata dengan pikiran seperti ini:

It means for the citizen, loyalty to right instead of to party; for men in general, purity, in word and thought as well as action; purity in association—the keeping of the eyes sacred from that which would contaminate the heart; the guarding of the mind from evil imaginations; of the lips from corrupting words; of the mouth from the entrance of the unclean; of the feet from the ways of death:

Sumber: Wilkin, George F. 1903:142. Control in Evolution, A Discussion of the Fundamental Principles of Social Order and Progress. New York: A.C. Armstrong & Son. Gambar dibuat oleh Levri Ardiansyah (2016).

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iv. ASSOCIATIONS.

57. The vast subject here spread out before us can only be touched upon in its main features. Association is the united action of individuals in pursuit of a common object. The associations which belong to the scope of our inquiry are those which find a place within the areas of agriculture, industry, and commerce. At present we consider industry and commerce only.

Sumber: Parkinson, Henry. 1920:101. A Primer of Social Science. London: P.S. King & Son. Gambar dibuat oleh Levri Ardiansyah (2016).

Leonardo da Vinci: *Scientific Artist*

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The man I spoke of as coming two hundred years later is Leonardo da Vinci. True he is best known as an artist, but if you read his works you will come to the conclusion that he was the most scientific artist who ever lived. He teaches the laws of perspective (then new), of light and shade, of colour, of the equilibrium of bodies, and of a multitude of other matters where science touches on art—not always quite correctly according to modern ideas, but in beautiful and precise language. For clear and conscious power, for wide-embracing knowledge and skill, Leonardo is one of the most remarkable men that ever lived.

Sumber: Lodge, Oliver. 1893:9. Pioneers of Science. London: Macmillan and Co. Gambar dibuat oleh Levri Ardiansyah (2016).

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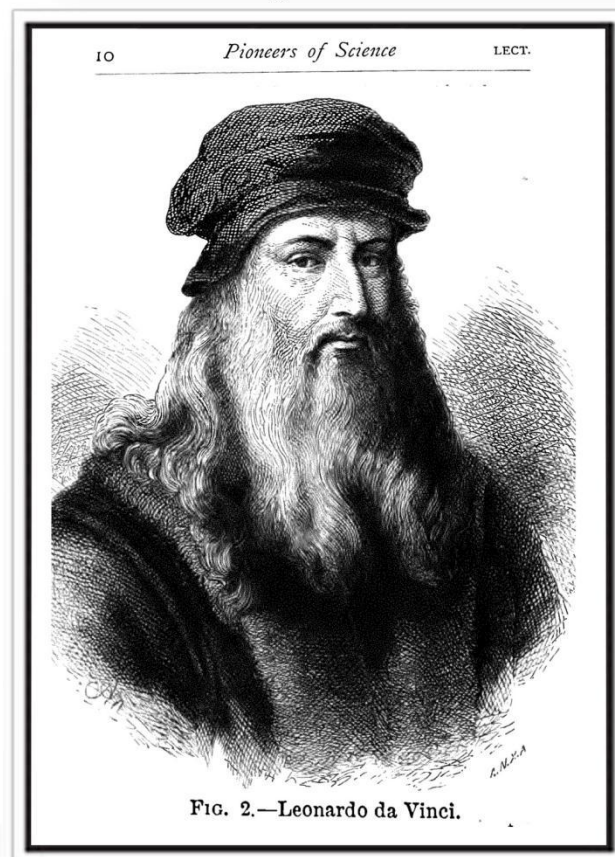
10 *Pioneers of Science* LECT.

Fig. 2.—Leonardo da Vinci.

Sumber: Lodge, Oliver. 1893:10. Pioneers of Science. London: Macmillan and Co. Gambar diolah oleh Levri Ardiansyah (2016).

Pemikiran Filosofis Rene Descartes

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237. Historical Note. René Descartes (1596–1650) was the first to observe the importance of the fact that the position of a point in a plane is determined if its distances, say x and y, from two fixed lines in the plane, perpendicular to each other, are known. He showed that geometric figures can be represented by algebraic equations, and developed the subject of analytic geometry, which is known by his name as *Cartesian* geometry.

DESCARTES

Descartes was born near Tours in France, and was sent at eight years of age to the famous Jesuit school at La Flêche. He was of good family, and since, at that time, most men of position entered either the church or the army, he chose the latter, and joined the army of the Prince of Orange.

Sumber: Hart, C.A. & Feldman, Daniel D. 1911:87. Plane and Solid Geometry. New York: American Book Company. Gambar dibuat oleh Levri Ardiansyah (2016).

Dualism yang dikemukakan Descartes ternyata juga terdapat pada sel. Waldeyer (1906) dalam buku karya Hegner (1914:130) berjudul '*The Germ-Cell Cycle in Animals*' memberi nama '*dualist*' terhadap fakta ilmiah sel Sertoli yang dinilai para ilmuwan Biologi sebagai sel selain sel benih.

130 GERM-CELL CYCLE IN ANIMALS

claim that they arise from cells other than germ cells; these writers have been called by Waldeyer (1906) "dualists." An equal number of authorities believe that both Sertoli cells and spermatogonia
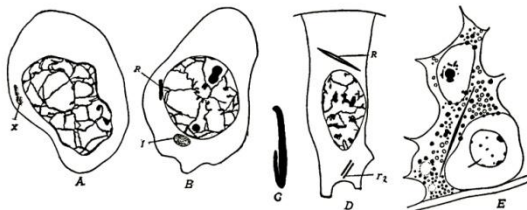
FIG. 41. — Stages in the formation of the Sertoli cell in man. *A*. Spermatogonium containing granular inclusion (*X*) from which "Sertoli cell determinant" *may* arise. *B*. Antepenultimate spermatogonium showing rod (*R*) and idiozome (*I*). *C*. Division of rod. *D*. A Sertoli cell containing a divided rod (*R*) and two rodlets (r_1). *E*. Sertoli cell with crystalloid of Charcot and lipoid granules; at lower right corner a spermatogonium with crystalloid of Lubarsch. (*A–D, from Montgomery, 1911; E, from von Winiwarter, 1912.*)

originate from primordial germ cells; these are the "monists."

Sumber: Hegner, Robert W. 1914:130. The Germ-Cell Cycle in Animals. New York: The Macmillan Company. Gambar dibuat oleh Levri Ardiansyah (2016).

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Dalam bidang Psikologi, Rene Descartes percaya bahwa persepsi otak tentang stimuli itu mirip dengan stimuli itu sendiri (*that the brain's representation of a stimulus resembled the stimulus).* Hal ini berarti, sel syaraf pada mata akan memproyeksikan pola-pola impuls seperti sebuah sketsa foto tentang objek yang kita lihat (*the nerves from eyes would project a pattern of impulses arranged like a picture, right side up).* Oleh karena itu, Descartes menegaskan bahwa aktivitas otak kita bukan duplikasi dari objek yang kita lihat, melainkan mirip (*resembled*). Pada saat kita melihat meja, representasi gambar bagian atas meja tidak berarti harus menjadi bagian atas meja dalam bayangan persepsi di dalam kepala kita, karena meja itu kita persepsi sebagai kode-kode sinyal yang diolah melalui beragam aktivitas sel syaraf. Kalat (2009:153) menuliskan pandangan Descartes ini seperti ini: '*your brain's activity does not duplicate the objects that you see. When you see a table, the representation of the top of the table does not have to be on the top on your head. The visual system does not duplicate the image. It codes it in various kinds of neuronal activity.*

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Asosiasi Matematika

a

Books by the late Eric Temple Bell

MEN OF MATHEMATICS

THE DEVELOPMENT OF MATHEMATICS

THE MAGIC OF NUMBERS

MATHEMATICS, QUEEN AND SERVANT OF SCIENCE

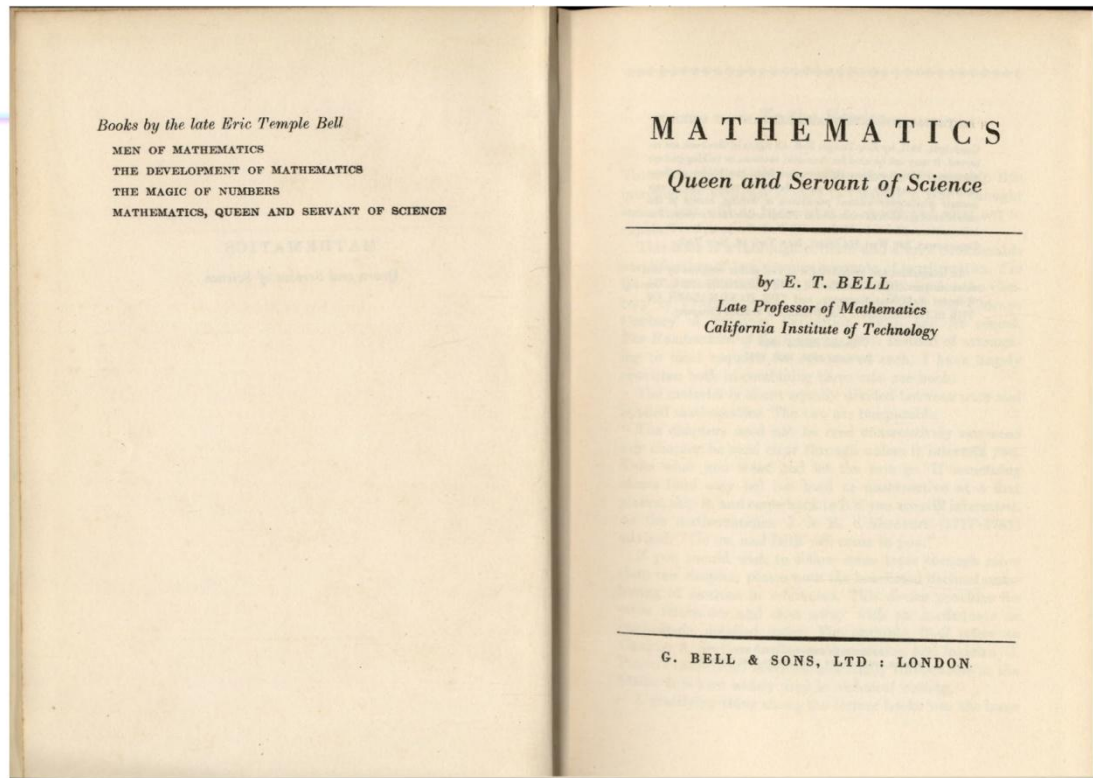
MATHEMATICS

Queen and Servant of Science

by E. T. BELL

Late Professor of Mathematics

California Institute of Technology

G. BELL & SONS, LTD : LONDON

Sumber: Bell, E.T. 1951. Mathematics: Queen and Servant of Science. London: G. Bell & Sons, Ltd. Gambar dibuat oleh Levri Ardiansyah (2016)

Rasanya kita tidak percaya jika definisi matematika pertama kali dideskripsikan sebagai 'Subjek yang kita tidak pernah tahu apa yang sedang kita bicarakan atau apa yang sedang kita katakan adalah benar'. Tulisan Eric Temple Bell (1951:17), *Late Professor of Mathematics, California Institute of Technology,* dalam bukunya berjudul '*Mathematics: Queen and Servant of Science*' dapat terbaca bahwa definisi matematika yang demikian dikemukakan oleh Russel (1872) dengan kalimat seperti ini: '*Mathematis may be defined as the subject in which we never know what we are talking about, nor whether what we are saying is true* '. Tulisan Prof, Bell dapat dibaca pada gambar berikut:

..

The first description of mathematics as a whole which need be seriously considered is a much-quoted epigram which B. (A. W.) Russell (1872–) emitted in 1901: "Mathematics may be defined as the subject in which we never know what we are talking about, nor whether what we are saying is true."

Sumber: Bell, E.T. 1951:17. Mathematics: Queen and Servant of Science. London: G. Bell & Sons, Ltd.
Gambar dibuat oleh Levri Ardiansyah (2016)

Mengapa Russel sampai pada rumusan definisi matematika yang demikian? Merunut tulisan Prof. Bell, karena Russel menekankan bahwa karakteristik Matematika memang sepenuhnya abstrak (*Russel's deskription emphasizes the entirely abstract character of mathematics*). Apalagi sejak tahun 1890, Matematika hanya dianggap sebagai *postulational form* (Bell, 1951:18) karena orang-orang yang membicarakan tentang apa itu Matermatika hanya dapat membayangkan apa yang sedang dia bicarakan (*what it is that each of them imagines he is talking about*). Russel yang kemudian melengkapi definisinya tentang Matematika, merumuskan peryataan bahwa '*mathematics is the science of number, quantity and measurement*'. Sebagai Ilmu tentang angka, Matematika kesulitan membuktikan dirinya adalah *science* karena angka bukanlah fakta yang ada bendanya berujud fisik. Angka hanya ada dalam pikiran, yang dibaca otak kita sebagai jumlah sudut. Jika kita membicarakan angka 2, otak kita memaknainya sebagai angka yang memiliki sudut berjumlah 2.
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Last, Russell's description of mathematics administers a resounding parting salute to the doddering tradition, still respected by the makers of dictionaries, that mathematics is the science of number, quantity, and measurement. These things are an important part of the material to which mathematics has been applied. But they are no more mathematics than are the paints in an artist's tubes the masterpiece he paints. They bear about the same relation to mathematics that oil and ground ochre bear to great art.

Sumber: Bell, E.T. 1951:18. Mathematics: Queen and Servant of Science. London: G. Bell & Sons, Ltd.
Gambar dibuat oleh Levri Ardiansyah (2016)

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Ilmuwan Matematika lainnya, B. Pierce (1809-1880) mendefinisikan Matematika seperti ini '*Mathematics is the science which draws necessary conclusions*'. Meski kala itu, Matematika belum diakui sebagai *science,* namun dengan keyakinan ilmiahnya Pierce merumuskan saja definisi Matematika sebagai *science* yaitu ilmu yang menarik kesimpulan yang diperlukan. Ilmuwan Matematika lainnya yang berkebangsaan Jerman bernama F. Klein (1849-1929)

mendefinisikan '*Mathematics in general is fundamentally the science of self-evident things*'. Klein menggunakan kata *things* dalam definisinya untuk menunjukan bahwa mengkaji Matematika berarti mengkaji tentang benda, sehingga dengan demikian Matematika adalah *science.* Tetapi ternyata tidak mudah bagi Klein membuktikan secara ilmiah bahwa *self-evident things* memang ada ujud fisiknya dalam konteks Matematika. Apalagi sesungguhnya semua orang menyadari bahwa Matematika adalah abstrak. Matematika merunut tulisan D. Hilbert (1862-1943) tidak lain merupakan sebuah permainan yang dimainkan berdasarkan aturan tertentu yang sederhana dengan tanda-tanda yang tak berarti di atas secarik kertas (*Mathematics is nothing more than a game played according to certain simple rules with meaningless marks on paper*).

Pada tahun 1830, G. Peacock dengan studinya tentang *Elementary Algebra* mulai membawa pencerahan melalui usulnya untuk mengajukan *a set of postulate* dalam Matematika. *A postulate* ini merupakan pernyataan yang kita setuju untuk menerimanya sebagai sebuah kebenaran tanpa perlu mempertanyakan mana buktinya (*some statement which we agree to accept without asking for proof*). Dengan adanya *postulate* orang tidak perlu lagi bertanya '*is it true?*' karena *postulate is given: it is to be accepted without argument.* Dalam buku lawas tentang geometri, *postulate* ini merupakan *axioms* yaitu *self-evident truth.* Sejak pandangan Peacock ini, Matematika modern menjadi lebih menaruh perhatian pada *playing the game according to the rules* yaitu aturan berupa proposisi matematis (*mathematical propositions*): *they think they know what they mean.*
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17. Axiom. An *axiom* is a general statement which is accepted as true without proof.

Axioms are truths so simple that we either cannot prove them or do not care to do so. An example of a mathematical axiom is: *If the same number be added to each member of an equation, the result is an equation.*

18. Postulate. A *postulate* is a geometric statement which is accepted as true without proof.

19. ***Postulate I.*** *There is only one straight line through two points.*

20. ***Postulate II.*** *Any geometric figure may be moved from one place to another without changing its size or shape.*

The postulates I and II are needed at once in Theorem I. Other postulates and axioms will be stated as the need for them arises.

Sumber: Hawkes, Herbert E. 1920:7. Plane Geometry. Boston: The Etbeneum Press.
Gambar dibuat oleh Levri Ardiansyah (2016).

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Prinsip-prinsip logik yang dikemukakan Aristotle kembali menjadi andalan untuk mendukung Matematika sebagai *science. The Law of Contradiction* dan *The Law of the Excluded Middle* adalah 2 *principles of Aristotelian Logic* yang kala itu mengemuka. *The Law of Contradiction* menegaskan bahwa *no A is not A* seperti *A is B, and A is not B* sedangkan *The Law of the Excluded Middle* menegaskan *that everything is either A nor not A.* Selain ini, para ilmuwan Matematika juga memberi definisi pada kata *set* dan mereka antipati pada kata *class.* Prof. Bell (1951:29) menulis '*We do not define class, but we do assume that given any class..and two rule of combination or two operations, that can be performed on any couple of things in the class*'. Dengan beranggapan bahwa *a* dan *b* ada di dalam *class,* maka salah satu pernyataan ini adalah benar: *a is equal to b* ($a = b$) atau *a is noy equal to b* ($a \neq b$). Jika *a* sendiri yang ada di dalam *class,* maka $a = a$ artinya *a thing is equal to itself.* Jika *a, b* dan *c* ada di dalam *class,* dengan keadaan $a - b$ dan $b = c$ maka $a = c$. Merunut tulisan Euclid hal ini berarti *things equal to the same thing being equal to one another.* Pola-pola tentang anggota dalam *class* ini kemudian menghasilkan 7 *postulate* yang kemudian dikenal sebagai *a field* yaitu *other sets of postulates* (Bell, 1951:33).

a

30 MATHEMATICS

meaning. Chinese characters, or §, *, †, or any other marks would do as well. The signs $\oplus$, $\odot$ may be given any names we please, for example, tzwgb and bgwzt. For the sake of euphony, however, they may be read plus, times.

We are *given a class* and *two rules of combination*, or *two operations*, that can be performed on any *couple* of things in the class. The operations are written $\oplus$, $\odot$. We *postulate* or *assume* that whenever a and b are in the class, the result, written $a \oplus b$, of operating with $\oplus$ on the *couple* a,b is a unique thing which is in the class. This postulate is expressed by saying that *the class is closed under* $\oplus$. We *postulate* also that the class is closed under the operation $\odot$.

A word as to the reading of formulas. Suppose a and b are in the given class. By our postulate above, $a \odot b$ is in the class, and therefore it can be combined with any c in the class to give a unique thing again in the class. How shall this last be written? If we get the result from the couple $a \oplus b$, c, we shall write it $(a \oplus b) \oplus c$; if the result is got from the couple c, $a \oplus b$, we shall write it $c \oplus (a \oplus b)$. At this step the hasty may jump to the unjustifiable conclusion that, *necessarily*,

$$(a \oplus b) \oplus c = c \oplus (a \oplus b),$$

where $=$ is the usual sign of equality.

The only things we shall assume about equality are these. If a,b are in the class, exactly one of the following is true: a is equal to b $(a = b)$, or a is not equal to b $(a \neq b)$.

If a is in the class, then $a = a$. This says that a thing 'is equal to' itself.

If a, b, c are in the class, and if $a = b$ and $b = c$, then $a = c$. This is Euclid's old friend about things equal to the same thing being equal to one another.

If a,b are in the class, and if $a = b$, then $b = a$.

The postulates proper for common algebra can now be

BREAKING BOUNDS 31

stated in short order. In this particular set there are seven, which we number for future reference.

POSTULATE (1.1). If a,b are in the class then $a \oplus b = b \oplus a$.

POSTULATE (1.2). If a, b, c are in the class, then

$$(a \oplus b) \oplus c = a \oplus (b \oplus c).$$

POSTULATE (1.3). If a,b are in the class, then there is an x in the class such that $a \oplus x = b$.

These are merely the familiar properties of algebraic addition precisely and abstractly stated. Subtraction is given by (1.3). Notice that our covering postulate of closure under $\oplus$ permits us to talk sense about $a \oplus b$ and $b \oplus a$ in (1.1), and similarly in the rest. The following three make common multiplication precise. Postulate (2.3) gives algebraic division.

POSTULATE (2.1). If a,b are in the class then $a \odot b = b \odot a$.

POSTULATE (2.2). If a, b, c are in the class then

$$(a \odot b) \odot c = a \odot (b \odot c).$$

POSTULATE (2.3). If a,b are in the class and are such that $a \oplus a$ *is not equal* to a, and $b \oplus b$ *is not equal* to b, then there is a y in the class such that $a \odot y = b$.

The seventh and last connects $\oplus$, $\odot$.

POSTULATE 7. If a, b, c are in the class, then

$$a \odot (b \oplus c) = (a \odot b) \oplus (a \odot c).$$

Notice that (1.1) and (2.1), also (1.2) and (2.2), differ only in the occurrence of the signs $\oplus$, $\odot$.

If we now replace $\oplus$ by the common $+$, and $\odot$ by $\times$, and then say that the class shall be that of all the numbers, positive or negative, whole or fractional, that ordinary arithmetic deals with, we see that our postulates merely state what every child in the seventh grade knows. *Of course*, to take (1.1), (2.1), we *must* get the same result out of $6 + 8$

Sumber: Bell, E.T. 1951:33. Mathematics: Queen and Servant of Science. London: G. Bell & Sons, Ltd. Gambar dibuat oleh Levri Ardiansyah (2016)

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Hingga tahun 1930, Matematika masih kesulitan membuktikan dirinya adalah *science.*

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Merunut tulisan Prof. Bell (1951:34) *postulate* (1.2), (2.2) menyatakan *associative property* yaitu $(a + b) + c = a + (b + c)$ dan *postulate* ini tidak dapat diubah, misalnya yang pertama muncul adalah $a + (b + c)$, kita tidak dapat menempatkan $(a + b) + c$ pada operasi ini karena *there is no postulate permitting us to do so,* dalam hal ini $a + (b + c)$ dan $(a + b) + c$ harus kita pandang sebagai *two distinct pieces of baggage* (Bell, 1951:35). Selain *associative* juga terdapat *commutative property* yaitu keadaan anggota *class* yang terhubung oleh operasi tertentu hingga memberikan hasil yang sama, tidak peduli bagaimanapun aturan yang diterapkan. Suatu operasi dinamakan *commutative* yaitu operasi yang memberikan keleluasaan kepada kita untuk mengubah aturan operasi tanpa mengubah hasil. Satu lagi yaitu *distributive property* yaitu operasi yang menghasilkan 2 anggota *class* yang mendapat perlakuan operasi tertentu. Dalam Matematika, *distributive property* ditunjukan pada *postulate* 7 seperti ini: $a \times (b + c) = (a \times b) + (a \times c)$.

To recall some useful terms, let us name the rule of play given by Postulate (1.1) the *commutative* property of the operation ⊕. As Postulate (2.1) says exactly the same thing about ⊙ that (1.1) does about ⊕, we refer to it as the commutative property of ⊙. Similarly (1.2), (2.2) express the *associative* property, and Postulate 7 is the *distributive* property. These are the familiar names of the schoolbooks on algebra.

Sumber: Bell, E.T. 1951:34. Mathematics: Queen and Servant of Science. London: G. Bell & Sons, Ltd.
Gambar dibuat oleh Levri Ardiansyah (2016)

Bell (1951:68) memberi contoh tentang *a commutative ring with a unity element.* Contoh ini menunjukan bahwa *commutative* berada bersama dengan *unity,* sehingga kita dapat menentukan posisi *communtative* pada Diagram Administrasi ada pada garis biru yaitu pada *consolidation phase.*

$$(b + c)a = ba + ca.$$

These are the distributive laws of multiplication with respect to addition. Both are postulated, as commutativity of multiplication is not assumed.

If in addition to (1.1)–(1.4) it is postulated that for all a,b in S, $ab = ba$, the ring is called *commutative.* If there is an element e in S such that $ea = ae = a$ for all a in S, the ring is called a *ring with unit, or unity, element e.* We have given one example of a commutative ring with a unity element. Another, from a less specialized ring of importance in modern algebra and in physics, will be given when we come to matrices [6.3]. For the moment we note a peculiarity of some rings that does not occur in fields.

Sumber: Bell, E.T. 1951:68. Mathematics: Queen and Servant of Science. London: G. Bell & Sons, Ltd.
Gambar dibuat oleh Levri Ardiansyah (2016)

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Berdasarkan *postulates* ini dapat digambarkan Diagram Administrasi seperti ini:
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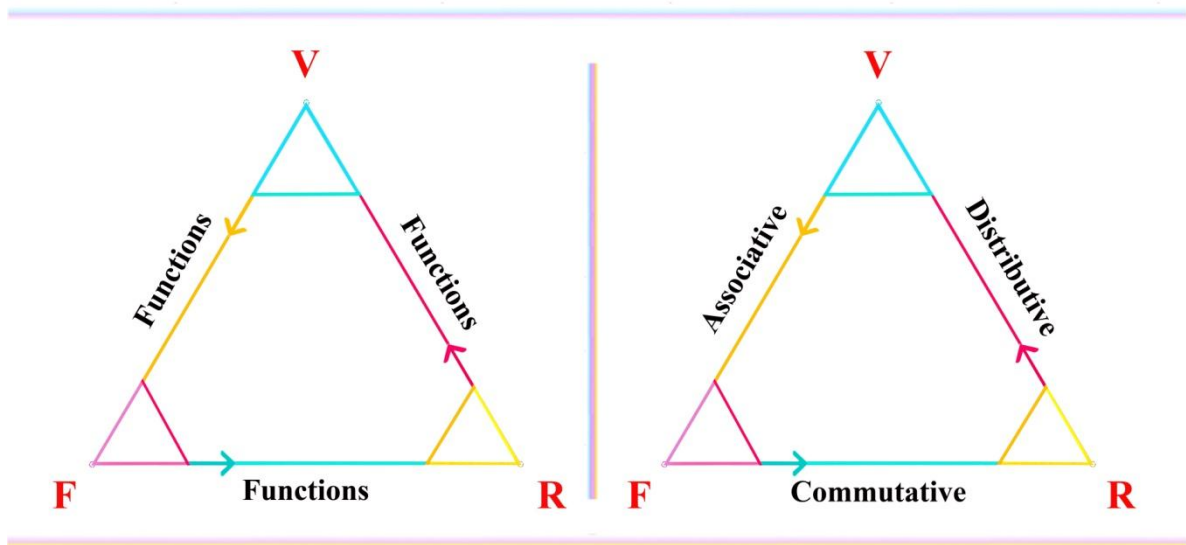
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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Istilah 'vektor' juga terdapat dalam Matematika yang mengadopsinya dari Ilmu Fisika. Di dalam Matematika, vektor adalah garis lurus yang memiliki panjang (*length*) dan arah (*distance*). Vektor *a* juga merupakan *a force of stated amount acting in a stated direction* dan *postulate* 2.1. tidak benar sebagai vektor. *Distance* didefinisikan sebagai *length of geodesic arc.* Sedangkan *straight lines* didefinisikan oleh Euclid sebagai garis yang terletak merata diantara esktremitasnya ('*a line that lies evenly between its extremities*').

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Open any handbook on mechanics or physics as they are taught in the first two years of college to those who intend to make their livings at applied science, and notice the heavy black letters, usually in Clarendon type, in the formulas. These represent 'vectors.' A vector is the mathematical name for a segment of a straight line which has both length and direction. A vector **a**, interpreted physically, represents, among other things, a force of stated amount acting in a stated direction. Now follow through a few of the vector formulas. Presently the astonishing fact presents itself that **a** × **b** is *not* always equal to **b** × **a**.

Vectors are *added* according to our Postulates (1.1), (1.2); Postulate (2.2) is still good, and Postulate 7 is satisfied, all with perfectly sensible physical meanings. But (2.1), the *commutative property* of *multiplication*, has gone overboard, as it *is not true for vectors*.

Sumber: Bell, E.T. 1951:36. Mathematics: Queen and Servant of Science. London: G. Bell & Sons, Ltd.
Gambar dibuat oleh Levri Ardiansyah (2016)

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Matematika lalu menggunakan konsiderasi epistemologis untuk menunjukan prinsip-prinsip fundamental atau postulat yang berasal dari *laws of nature.*

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An extreme example of this general type of theory was proposed in 1935 by Eddington, famous for his contributions to physics, astrophysics, and the philosophy of science. Eddington's scientific faith startled some of his orthodox colleagues. "I believe," he said, "that all the laws of nature that are usually classed as fundamental can be foreseen wholly from epistemological considerations." The philosophy and physics suggested by this remarkable creed are elaborated in the posthumously published *Fundamental Theory* (1946). Anyone interested will find an account of this by E. T. Whittaker in the *Mathematical Gazette* (London), Vol. 29, pp. 137–144, 1945.

Sumber: Bell, E.T. 1951:271. Mathematics: Queen and Servant of Science. London: G. Bell & Sons, Ltd.
Gambar dibuat oleh Levri Ardiansyah (2016)

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Asosiasi Psikologi

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Istilah *association* biasa digunakan oleh psikolog Inggris pada abad ke-18 dan abad ke-19 dalam definisinya sebagai rangkaian fakta berulang pada periode tertentu (*sequences*) yang terjadi dalam rangkaian elemen memori atau imaginasi atau pikiran. Warren (1921:6) dalam bukunya yang berjudul '*A History of the Association Psychology*' menulis,'*The term association as used by English psycologist of the eighteenth and nineteenth centuries, applies primarily to the sequences that occur in trains of memory or imagination ir thought*'. Berdasarkan definisi Warren ini, penulis dapat menyimpulkan kalimat singkat yang lebih mudah dipahami oleh mahasiswa Ilmu Administrasi, bahwa *association* adalah rangkaian fakta berulang. Dengan definisi ini, menjadi jelas bagi kita bahwa asosiasi bukanlah merupakan perkumpulan, perserikatan, institusi atau organisasi sebagaimana dipahami oleh sebagian kalangan. Sebagai rangkaian fakta yang berulang, *association* terkait erat dengan istilah *sequences, series, trains* dan siklus (*cycle*). Sebagai contoh asosiasi diantaranya adalah *serial order,* dan *cell cycle.*

Hobbes mengartikan *association* sebagai '*mental discourse*', Tucker mengartikannya sebagai '*translation*' dan Thomas Brown lebih suka menggunakan kata '*suggestion*' sebagai pengganti kata *association.* Dalam pengertian yang semacam ini, *association* merupakan pengalaman yang terjadi berdasarkan relasi-relasi tertentu. Dalam pandangan yang sempit, konsep *association* merupakan prinsip yang digunakan untuk melakukan induksi terhadap serangkaian ide-ide tertentu (*conceived as the principle by which trains of ideas are induced*).

2. *Definitions of Association*

The term *association*,[1] as used by the English psychologists of the eighteenth and nineteenth centuries, applies primarily to the *sequences* that occur in trains of memory or imagination or thought: their problem was to formulate the principles involved in such sequences. According to the view generally adopted by these thinkers, one such experience follows another through certain definite relationships. Thus, one idea may serve to recall another which *resembles* it or which was *contiguous* to it in former experience. Here we have the narrowest view of association, conceived as the principle by which trains of ideas are induced. Starting with this fundamental conception, the scope of the principle has been broadened in various directions.

Sumber: Warren, Howard C. 1921:006. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Istilah '*association of ideas*' pertama kali dikumandangkan oleh John Locke pada tahun 1667 melalui publikasi yang dilakukan oleh Marin Cureau de La Chambre dalam tulisannya yang berjudul '*Systeme de l'ame*' (Warren, 1921:3). Pada tahun 1700, dalam '*Essay concerning Human Understanding*' Locke kembali menjelaskan tentang *association of ideas* sebagai koneksi antar-pengalaman (*the connections between experiences*). Merunut tulisan Locke, beberapa ide memiliki kecocokan dan keterkaitan satu sama lain secara alamiah. Dalam tulisannya Warren (1921:5) menjelaskan bahwa manakala Locke berbicara tentang *association of ideas,* maka yang dimaksud adalah beragam koneksi yang mungkin terjadi diantara *all sorts of mental content.* Dalam kalimat yang sederhana, penjelasan Locke ini adalah tentang '*mental association*' yang kerap kali ditekankan Locke sebagai *the fact*. Ilmuwan lainnya, Hobbes memandang *association* sebagai *mode of succession of ideational experiences in generally adopted as a starting-point in the analysis.*

Jauh sebelum Locke, doktrin tentang asosiasi yang kemudian dikenal sebagai *laws of association* telah dirumuskan oleh Aristotle yang sebenarnya lebih merupakan petunjuk (*hint*) tentang *association of sensation* yang terdiri dari *resemblance (similarity), contiguity* dan *contrast*. Kata *resemblance* dan *similarity* yang pengertian sama sebagai persamaan sebenarnya memiliki pengertian yang berbeda. Merunut tulisan Warren (1921:7), secara etimologis, *similarity* merupakan kemiripan (*likeness*) diantara keserasian berbagai faktor, sedangkan *resemblance* merupakan kemiripan satu benda terhadap benda lainnya. Warren mencontohkan, 2 orang asing bisa jadi memiliki *similarity* dengan penampilan keduanya yang tampak serasi. Seorang anak lelaki dapat *resemble* ayahnya, karena ayahnya *be resembled* oleh anak tersebut. Contoh lain, uang 2 dollar dapat kita nilai sebagai *similar,* tetapi uang dolar palsu *resembles* terhadap uang dolar asli.

[1] The two words *similarity* and *resemblance* are not distinguished in the discussion. Some writers prefer one or the other; some use the two indiscriminately. Etymologically, similarity appears to be a likeness between coordinate factors, resemblance a likeness *of* one thing *to* another. Thus, two strangers may be of *similar* appearance, while a son may *resemble* his father, and the father *be resembled by* the son; two dollar bills are *similar*, but a counterfeit *resembles* the real dollar. If this distinction be brought over into psychology, two ideas should be termed *similar* or *resembling* according as they are coordinate or one depends on the other, but an idea can only *resemble* a sensation. This mode of association, then, would be termed similarity or resemblance according to the form of the doctrine which a given writer holds.

Sumber: Warren, Howard C. 1921:007 A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Di dalam Psikologi, *contiguity* atau yang juga dikenal sebagai '*The Laws of Contiguity*' merupakan sensasi untuk mengingat kembali pengalaman yang baru saja terjadi, sedangkan *similarity* yang juga dikenal sebagai '*The Laws of Similarity*' merupakan pengalaman yang terjadi mengingatkan kembali pada pengalaman yang serupa.

The Law of Contiguity is generally stated in substantially the following terms: " A sensation or idea tends to recall other experiences which formerly occurred in ~~close~~ proximity to it." The Law of Similarity is generally formulated as follows: " An experience tends to recall experiences which resemble it."

The two relations of similarity and contiguity are typical of the association standpoint, and are generally coupled together. Certain writers, however, emphasize one at the expense of the other, or reduce one to terms of the other. Thus Spencer makes *likeness* the sole basis of association and reduces contiguity to " likeness of relation." More commonly, resemblance (similarity) is subordinated to *contiguity*.

Sumber: Warren, Howard C. 1921:283. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Contiguity

Word	Picture
Value	V
Fact Result	F R

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sedangkan *contrast* merupakan rangkaian fakta yang berbeda-beda (*association of unlike*) berdasarkan pengalaman (*habitual connection*). Tulisan Warren (1921:8) tentang hal ini dapat dibaca pada gambar berikut ini:

The association of unlike or contrasted experiences has been recognized by some as an additional principle, following the view of Aristotle, while by others it is regarded as merely a particular phase of the two laws already mentioned.

Sumber: Warren, Howard C. 1921:008. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Kedua prinsip yaitu *resemblance* dan *contiguity* ini dirangkum menjadi satu prinsip dalil hukum (*one single law*) yang dikenal sebagai *'Redintegration or Reinstatement'*. Fakta yang termasuk ke dalam *reinstatement* adalah pengalaman masa lalu yang terasosiasi dengan pengalaman saat ini.

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Resemblance dan *similarity* menempati poin ungu karena keduanya menunjukan (1) keserasian; (2) kemiripan yang dipersamakan, seperti manusia yang mempersamakan kekuatan alam dengan Tuhan, berdasarkan pengalaman; dan (3) sesungguhnya didalam persamaan terdapat perbedaan yang kontradiktif.

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Contiguity berarti kita belajar dari pengalaman yang baru saja terjadi sehingga kita menjadi tahu. Dalam konteks ini *contiguity* berada dalam poin yang sama dengan *science as to know.*

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Contrast dtempatkan pada poin kuning karena *contrast* merupakan *habitual connection* dan *association unlike.*

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Secondary Laws of Association

Thomas Brown merumuskan *Secondary Laws of Association* yang kemudian dikenal sebagai *Brwon's Laws of Suggestion* terdiri dari 9 pengaruh seperti ini:

1. *Relative Duration*
2. *Relative Liveliness*
3. *Relative Frequency*
4. *Relative Recency*
5. *Coexistence*
6. *Constitutional Differences*
7. *Variations in the same individual*
8. *Diversities of State*
9. *Habits of Life*

Warren (1921:73) menuliskan *Secondary Laws of Association* ini sebagaimana dapat dibaca pada gambar berikut:

BROWN'S LAWS OF SUGGESTION 73

Probably the most important contribution of Brown to the association doctrine is his formulation of certain Secondary Laws of Association (or Suggestion). In these he seeks to enumerate the circumstances which "modify the influence of the primary laws, in inducing one associate rather than another."[1] They are nine in number:

(1) The relative *duration* of the original sensations: "The longer we dwell on objects, the more fully do we rely on our future remembrance of them."[2]

(2) Their relative *liveliness:* "The parts of a train appear to be more closely and firmly associated as the original feelings have been more lively."[3]

(3) Relative *frequency:* "The parts of any train are more readily suggested in proportion as they have been more frequently renewed."[4]

(4) Relative *recency:* "Events which happened a few hours before are remembered when there is a total forgetfulness of what happened a few days before."[5]

(5) Their coexistence in the past with *fewer alternative associates:* "The song which we have never heard but from one person can scarcely be heard again by us without recalling that person to our memory."[6]

(6) *Constitutional differences* between individuals modify the primary laws: They give "greater proportional vigor to one set of tendencies of suggestion than to another."[7]

(7) Variations in the *same individual,* "according to the varying emotion of the hour."[8]

(8) "Temporary *diversities of state,*" as in intoxication, delirium, or ill health.[9]

(9) Prior *habits of life* and thought—the influence of inground tendencies upon any given situation, however new or irrelevant the experience may be.[10]

[1] Lect. 37, II, p. 44. [2] *Ibid.* [3] *Ibid.* [4] P. 45. [5] *Ibid.* [6] *Ibid.* [7] P. 46. [8] P. 50. [9] P. 51. [10] P. 52.

Secondary Laws of Association

1. Relative Duration

2. Relative Liveliness

3. Relative Frequency

4. Relative Recency

5. Coexistence

6. Constitutional Diferences

7. Variations in the same individual

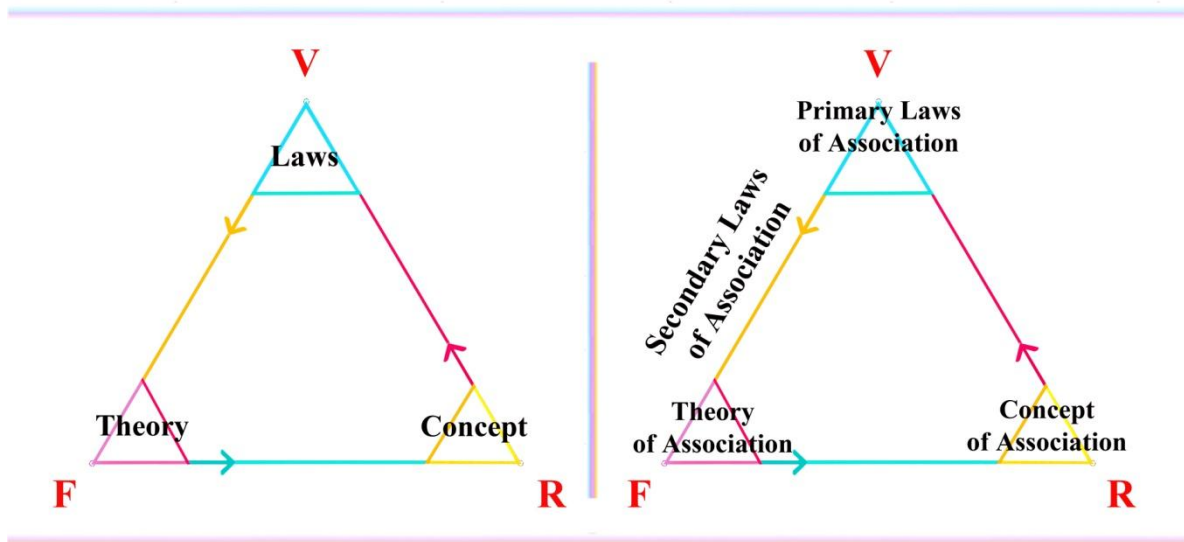
8. Diversities of State

9. Habits of Life

Sumber: Warren, Howard C. 1921. A History of the Association of Psychology. New York: Charles Scribner's Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Urutan kesatu hingga keempat dari *Secondary Laws of Association* ini disimpulkan Brown dalam kalimat singkat '*When the two associate feelings have both (together or in immediate succesion)*' *been of long continuance, very lively, very frequently renewed in the same order, and that recently, the tendency to suggest each other is most powerful'*. Keempat pengaruh atau prinsip ini merupakan *specific experiences* yaitu satu pengalaman cenderung memunculkan pengalaman baru yang lebih siap karena belajar dari pengalaman terakhir berdasarkan durasi, intensitas, frekuensi dan peristiwa yang baru terjadi. Merunut tulisan Warren (1921:286), keempat urutan hukum ini dapat dinyatakan dalam kalimat seperti ini '*One experience tends to bring up another earlier experience more readily according as the latter (a) remained longer in consciousness (duration); (b) was more intense (intensity);(c) has occured more frequently (frequency) dan (d) has occured more recently (recency)* '.

Merunut tulisan Brown '*The Primary Laws of Association*' yang dikemukakan Plato dan Aristotle, '*are founded on the mere relations of the objects or feelings to each other*' sedangkan '*Secondary Laws of Association*' mengindikasikan pengaruh yang diberikan oleh keadaan berdasarkan aplikasi tertentu dari '*The Primary Laws of Association*'. Berdasarkan pandangan Brown ini, dapat kita mengerti bahwa *Secondary Laws of Association* merupakan pengaruh dari proses

siklikal yang terjadi pada poin *Laws of Association* hingga terciptanya keadaan (*circumstance*). Dengan demikian, *Secondary Laws of Association* dapat digambarkan seperti ini:

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Berdasarkan gambar *administration diagram* inilah penulis dapat menempatkan *Secondary Laws of Association* pada posisi sebagai garis, bukan pada posisi sebagai poin. Diagram yang menggambarkan posisi *Secondary Laws of Association* ada pada garis yang menghubungkan *Primary Laws of Association* dengan *Theory of Association*

Brown adalah orang pertama kali dapat menjelaskan perbedaan antara *intesify factors* dengan *quality factors* dalam asosiasi.

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Metode Introspektif pada Kajian Asosiasi Psikologi

Mengkaji asosiasi memang tidak terlepas dari metode instrospektif. Warren (1921:214) dalam bukunya yang berjudul '*A History of the Association Psychology*' menulis bahwa kajian tentang asosiasi sudah sekian lama dilakukan dengan menggunakan satu-satunya metode yaitu metode instrospektif. Kutipan tulisan Warren ini dapat dibaca pada gambar berikut:

> **(3) The associational analysis had gone as far as it could by the sole use of the introspective method. Something corresponding to the laboratory investigations used in chemistry and physics was needed to determine the relative strength of the associative processes. When these investigations were actually under way, they suggested new experimental problems. Association thus came to be viewed not as the fundamental process of human mind, but as one among several processes, each complex and interwoven in the total manifestations of consciousness.**

Sumber: Warren, Howard C. 1921:214. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Penelitian tentang Asosiasi dengan Metode Percobaan.
Sully (1884) dalam bukunya berjudul '*Outlines of Psychology*', menekankan pada fakultas atau beroperasinya '*feeling, knowing and willing*'. Pandangan Sully ini dapat dibaca pada buku karya Warren (1921:213) yang digambarkan seperti ini:

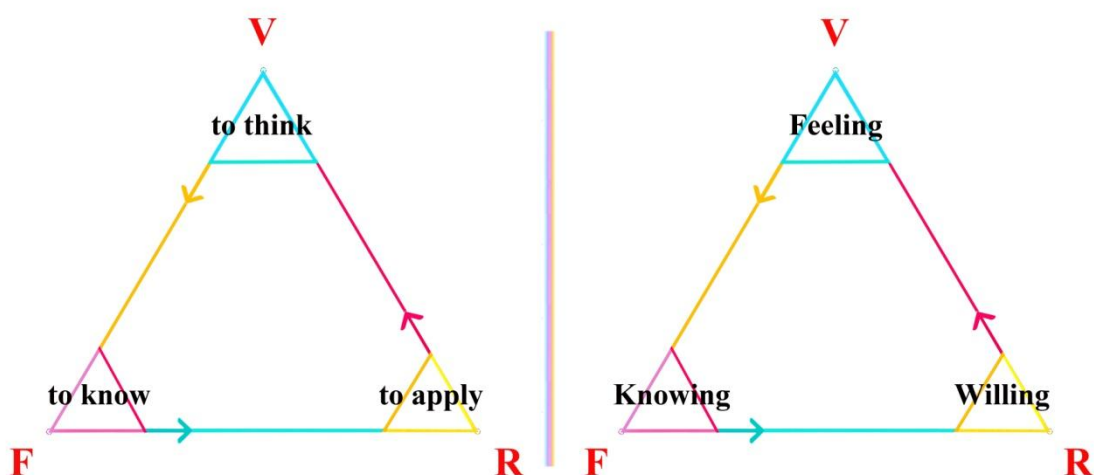
CHAPTER VIII

EXPERIMENTAL STUDIES OF ASSOCIATION

1. Beginnings of Experimental Investigation

SEVERAL influences combined to bring an end to the association movement. (1) The Scottish 'faculty psychology' obtained a foothold in England as well as America. In 1838 William Hamilton brought out an edition of Thomas Reid's 'Works' with notes of his own which showed considerable sympathy with Reid's system. Later James Sully's 'Outlines of Psychology' (1884), a combination of the Scottish and English standpoints, was welcomed as being more in touch with popular conceptions than Bain's system. Sully emphasizes the faculties or 'operations' of *feeling*, *knowing*, and *willing*, rather than the more elusive operations of association and attention.

Sumber: Warren, Howard C. 1921:213. A History of the Association Psychology. New York: Charles Scribner & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

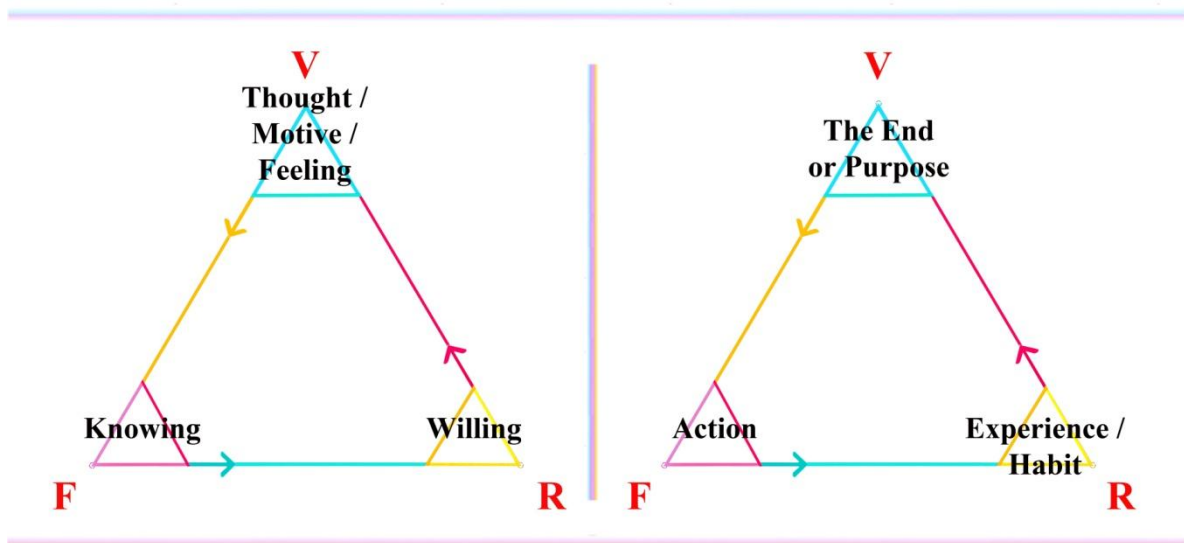
Pada Segitiga Asosiasi Administrasi, yang menggambarkan perbedaan antara *science* dan *philosophy,* kita telah telah ketahui bahwa *science* yang merupakan *to know* berada pada poin ungu dan *philosophy* yang merupakan *to think* berada pada poin biru muda, sehingga dengan dasar ini pandangan Sully (1884) dapat digambarkan dalam Segitiga Asosiasi Administrasi seperti ini:

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Posisi *feeling* berada pada poin biru muda yang sama dengan *to think.* Hal ini dapat kita mengerti berdasarkan Psikologi bahwa *thought and feeling* merupakan *emotion process* (Lazarus, dalam buku karya Nolen-Hoeksema (2009:237) yang berjudul '*Atkinson & Hilgard's Introduction to Psychology*') dengan sistematika *thought – action – feeling,* sehingga kita menjadi mengerti bahwa perasaan terjadi setelah tindakan.

Merunut tulisan F.H. Bradley (1887) dalam buku karya Warren (1921:214), motif merupakan aliran dari proses berpikir dan karenanya motif menjadi bagian dari proses emosi yang akan menjadi kepentingan (*interest*) pada saat motif bertemu dengan keinginan (*desire*).

The same method of treatment is found in several English discussions of the association problem. F. H. Bradley, examining the thought process in 1887, finds association inadequate to account for its connections and sequences. The underlying motive for the flow of thought is the *end* or purpose determined beforehand.[1]

Sumber: Warren, Howard C. 1921:214. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Oliver (1935:305-306) dalam bukunya berjudul '*Philosophy and the Concept of Modern Science*' pada saat menguraikan tentang 2 aspek tingkah laku menjelaskan bahwa motif atau niat terjadi sebelum tindakan (*motive or intention behind the act*) dan motif merupakan salah satu aspek tingkah laku. Aspek lainnya adalah hasil atau konsekuensi dari tindakan (*results or consequences of the act*) yaitu kebiasaan (*habit*), terutama kebiasaan yang terjadi akibat tindakan bertemu dengan durasi pengalaman. Artinya semakin lama tindakan akan menjadi pengalaman dan semakin lama pengalaman akan menjadi kebiasaan. Pandangan Oliver ini telah penulis gambarkan dalam Segitiga Asosiasi Administrasi, dengan posisi *motive* berada pada poin biru muda, *action* ada pada poin *ungu* dan *habit* berada pada poin kuning. Penyandingan pandangan Oliver (1935:305-306) dengan pandangan Warren (1921:213) akan menghasilkan pengetahuan bahwa poin biru muda juga merupakan tujuan (*purpose/goal*). Perhatikan gambar berikut:

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Asosiasi sebagai *total manifestations of consciousness.* Merunut tulisan Warren (1921:214), ilmuwan Psikologi pada akhirnya menyadari bahwa asosiasi dapat dipandang juga sebagai 'bukan proses berpikir yang mendasar' melainkan asosiasi merupakan proses yang kompleks dan terjalin dari total manifestasi kesadaran.

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Awal mula penelitian ilmiah tentang asosiasi dengan menggunakan metode percobaan dilakukan oleh Francis Galton (1822-1911) yang mempublikasikan hasil penelitiannya pada tahun 1879 pada majalah *Brain volume 2* dengan judul '*Psychometric Experiments*'. Percobaan yang dilakukan Galton adalah tentang *reaction time of association* dan keterkaitannya dengan beberapa tanda tertentu. Galton melakukan prosedur penelitian dengan cara memilih kata yang telah ditulis pada secarik kertas secara acak, lalu menekan *stop-watch* pada saat kata yang dipilih tadi telah dipersepsi dengan cara mengemukakan 2 ide yang terkait (*associated succesively*) dengan kata terpilih. Galton lalu mencatat waktu saat 2 ide ini telah berhasil dikemukakan. Berdasarkan percobaan ini, akhirnya Galton dapat membedakan adanya 3 jenis asosiasi yaitu: (1) asosiasi yang dibangun berdasarkan pada suara dari kata yang diucapkan, bukan pada makna atau pengertian kata; (2) *sense-imagery* atau ide yang muncul berdasarkan makna kata; dan (3) *histrionic association* yaitu melalui gambar yang merupakan tampilan dari suatu tindakan ternyata membawa ide pada gambaran situasi yang tepat. Jenis asosiasi yang ketiga ini kemudian dikenal sebagai *kinesthetic elements.* Di akhir tulisannya, Galton menekankan bahwa asosiasi terkait erat dengan kegesitan berpikir (*nembleness of thought*).

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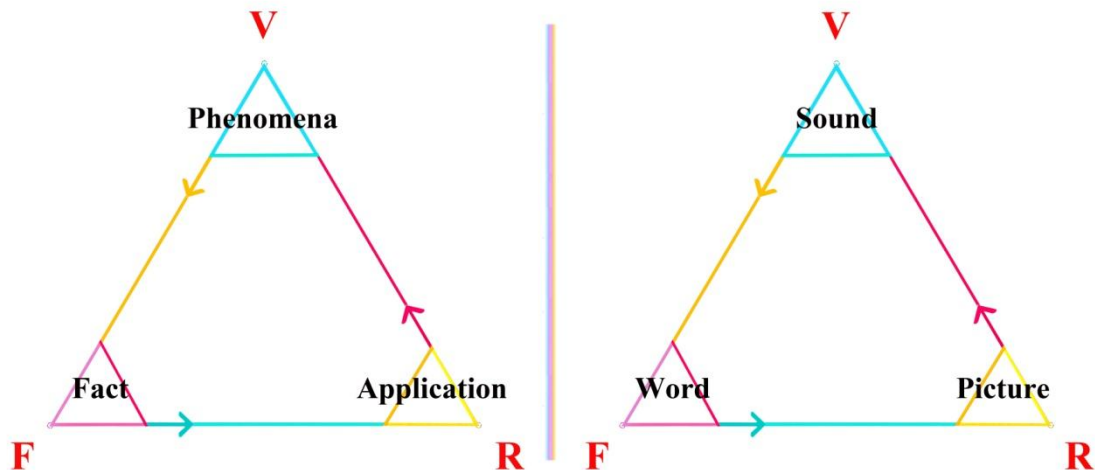
Finally, Galton distinguished three distinct sorts of associations: (1) Associations based upon the *sound* of the word rather than its meaning; (2) Sense-imagery, or ideas aroused by the *meaning* of the word presented; (3) Histrionic associations, which picture the performance of an action, bringing in the appropriate situations; [1] the last type includes what we now call kinesthetic elements. Galton closes the paper with remarks emphasizing the nimbleness of thought and the recurrence of the same ideas in trains of thinking.[2]

Sumber: Warren, Howard C. 1921:216. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Kesimpulan Galton tentang 3 jenis asosiasi ini dapat digambarkan pada Segitga Asosiasi Administrasi seperti ini:

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

Suara termasuk dalam poin biru muda yang satu ranah dengan fenomena karena hingga hari ini, ilmuwan Psikologi masih memandang suara sebagai *somehow,* yaitu misteri 'entah mengapa' *dendrite* dapat membedakan mana suara keras yang bernada marah dan mana suara yang keras yang merupakan logat.

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Repetition and Lapse Time

Hermann Ebbinghaus (1850-1909) pada tahun 1885 meneliti tentang kekuatan asosiasi yang ditentukan oleh pengulangan (*repetition*) dan selang waktu (*lapse time*). Hasil penelitian Ebbinghaus ini kemudian dijadikan model oleh sejumlah ilmuwan, diantaranya adalah G.E. Muller dan F. Schumann yang menghasilkan metode *learning and relearning* sebagaimana tertuang dalam tulisan berjudul '*Experimentelle Beitrage zur Lehre des Gedachtnisses*' (Warren, 1921:218). Pada tahun 1894, John A. Bergstrom mempelajari '*the relation of interference to the practised effect of associations*'. E.A. Kirkpatrick meneliti tentang kekuatan relatif dari *visual, auditory* dan *motor material* dalam kemampuan mengingat kembali (*recall*) dan relasi antara *associative recall and recognition.* Ilmuwan lainnya adalah Alfred Jost (1897) yang merumuskan 2 prinsip yang kemudian dikenal sebagai *Jost's Laws* seperti ini: (1) *if two association are of equal strength but of different age, a fresh repetition increase the value of the older more than of the newer* dan (2) *if two association are of equal strength but of different age, the older decrease less with to course of time*.

Jost's results indicate that a distribution of the repetitions over a lengthy period is more favorable than concentrating them into one day, but that it is more economical to learn the material as a unit than piecemeal. He formulates the two following principles, which are known as *Jost's Laws:*

1. If two associations are of equal strength but of different age, a fresh repetition increases the value of the older more than of the newer.

2. If two associations are of equal strength but of different age, the older decreases less with the course of time.

Sumber: Warren, Howard C. 1921:220. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Percobaan yang dilakukan James McKeen Cattell pada 1887 di *Leipzig Lab* yang dikenal sebagai '*experiments on the association of ideas'* berhasil mengungkapkan beragam proses mental, yaitu *perception, recognition, discrimnation and association.* Dalam percobaannya tentang *association, Cattell* menemukan bahwa *stimulus* yang merangsang terjadinya asosiasi terdiri dari kata yang tercetak pada secarik kertas dalam hubungannya dengan *timing aparatus* (misalnya *stop-watch*). Hitungan waktu dimulai sejak orang yang diteliti mengucapkan kata pertama (yang terasosiasi dengan stimulus) hingga gerakan bibirnya tertutup sebagai tanda telah berakhirnya respon dan pada saat inilah waktu terhitung. Waktu terjadinya asosiasi bervariasi tergantung pada jenis asosiasi, seperti misalnya *relation of class to member* yang berbeda dengan *relation of whole to parts.*

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3. Reaction Time of Association

Galton's attempt to time the associative process was repeated under more exact laboratory conditions by Wundt's pupils.

JAMES MCKEEN CATTELL carried out in the Leipzig laboratory in 1887 a series of experiments on the reaction time for various mental processes, including perception, recognition, discrimination, and association.[1] In the association experiments the stimulus consisted of printed words exposed in connection with a timing apparatus. The subject pronounced the first word associated with the stimulus; the lip movement of the response marked the end of the reaction and measured the time automatically. The association time was found to vary within wide limits according to the type of association involved. For one subject the relation of *class* to *member* (e.g. river—Rhine) averaged 727σ; while the relation of *whole* to *part* where the objects were exhibited in pictures (e.g. ship—sail) averaged only 358σ.[2] In later experiments with untrained subjects much longer association times were found.

Sumber: Warren, Howard C. 1921:222. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Association and Apperception

Wilhelm Wundt (1832-1920) merumuskan teori tentang perbedaan antara *association* dengan *apperception connection* bahwa *apperceptive connection* merupakan fungsi operasi dari *apperceptive,* yaitu sebagai *a feeling of activity* yang merupakan pengalaman subjektif sedangkan koneksi yang terbangun ditentukan secara objektif bukan berdasarkan ide tetapi oleh kesadaran. Tulisan Warren (1921:224) tentang ini dapat dibaca pada gambar ini:

4. Association and Apperception

WILHELM WUNDT'S (1832-1920) contributions to the investigation of association are exceedingly important, but they are for the most part indirect. He set many experimental problems, which his students worked out. These are mentioned elsewhere in this chapter. Wundt's personal contributions are more difficult to estimate. In his monumental work, the 'Grundzüge'[1] he devotes most of the section on association to the description and discussion of experimental results.

A characteristic feature of his theoretical treatment is the distinction between *association* and *apperceptive connection.* The latter he regards as a higher sort of connection, based upon association. In apperceptive connections the 'apperceptive' function operates; a feeling of activity is subjectively present, and the connection is determined (objectively) not merely by the idea aroused, but by the entire previous development of consciousness. Wundt classifies the two types as follows:

Associations	Apperceptive Connections (Complex Apperceptions)
Fusions	Synthetic Apperceptions
Assimilations	Analytic Apperceptions
Complications	Synthetic-analytic Apperceptive Processes
Assimilative Memory Associations	
Successive Memory Associations	

Apperceptive-associative Stream of Thought

Since apperceptive connections rest on association, Wundt holds that all changes of ideas, so far as they are not due to direct sensory stimulation, depend ultimately upon the associative process.[2]

Sumber: Warren, Howard C. 1921:224. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Dalam Kamus Besar Bahasa Indonesia, apersepsi/aper·sep·si/ /apersépsi/ *n Psi* pengamatan secara sadar (penghayatan) tentang segala sesuatu dalam jiwanya (dirinya) sendiri yang menjadi dasar perbandingan serta landasan untuk menerima ide baru

Walter B. Pillsburry (1897) melakukan penelitian ilmiah dengan percobaan tentang relasi antara asosiasi dengan selektif proses yang melibatkan apersepsi. Pillsburry menemukan bahwa apersepsi merepresentasikan fase intelektual yang lebih tinggi daripada asosiasi. Kesamaan keduanya adalah merupakan proses yang abstrak. Manfestasi nyatanya terjadi pada *assimilation,* yaitu merupakan proses atau tindakan apersepsi yang lengkap. James Ward (1886) mendefinisikan *assimilation as the 'fusing' process which occurs in all association. Association may occur among presentations even when there is no contiguity between them - when therefore no association can take place'* (Warren, 1921: 242).

WALTER B. PILLSBURY in 1897 investigated experimentally the relation between association and the selective process involved in apperception.[3] The material consisted of typewritten words into which misprints were introduced. He finds that apperception represents a higher intellectual stage than association; but both of these processes are abstractions. The first concrete manifestation of consciousness appears in *assimilation,* which completes the process or act of perception. Pillsbury concludes that many forms of intellectual connections which psychologists usually treat as distinct types really involve the same factors. Hence if the prevailing schemes of mental classification are to be retained, they must be justified on other than psychological grounds.

Sumber: Warren, Howard C. 1921:224-225. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Warner Fite membedakan antara *association* sebagai proses psikologis dan *apperception* sebagai suatu bentuk dari aktivitas mental (*mental activity*). Merunut tulisan Fite, fisiologis tidak dapat mengikat secara bersama-sama dengan kondisi psikis '*physiological links cannot bind together psychical state*'.

WARNER FITE distinguishes[1] between *association* as a physiological process, and *apperception* as a form of mental activity. "Physiological links cannot bind together psychical states."[2] If we examine the two principles of contiguity and similarity, we find that the former admits of a physiological interpretation, while the latter does not. On the other hand, association by similarity cannot be expressed in any known terms. It is therefore, he concludes, due to the apperceptive function of consciousness.

Sumber: Warren, Howard C. 1921:225. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Laws of Association

William James adalah orang yang pertama kali melakukan penelitian ilmiah tentang *classic laws of similarity and contiguity* melalui serangkaian percobaan. Hasil percobaannya dipublikasi pada tahun 1880 dalam bentuk artikel berjudul '*The Association of Ideas*' yang dimuat pada majalah *Pop. Sci. Mo. 16.* James yakin bahwa '*thought works under mechanical conditions*'.James meringkas '*the laws of contiguity and similarity*' menjadi satu yaitu '*complete association by contiguity*'. Terhadap '*quantitative laws*'-nya justru ditingkatkan menjadi 4 yaitu: *habit, recency, vividness dan congruity.*

8. Laws of Association: Similarity and Contiguity

The classic laws of similarity and contiguity have been submitted to experimental study. This new mode of treatment was forecast by WILLIAM JAMES in a critical and constructive article[1] published in 1880, which emphasizes the physiological factor in association. James points out that the historic association school and the Herbartian movement, while differing in theoretical basis, agree in almost every other respect in their interpretation of association. Thought, according to both schools, works under mechanical conditions. These conditions determine the order in which the mental content is presented. James himself accepts this view. He reduces the laws of contiguity and similarity to one: complete association by contiguity. The quantitative laws he increases to four: habit, recency, vividness, and emotional congruity. These laws explain the reason why one representation rather than another appears at a given time in consciousness. The arousal of the associated thought depends in every case upon the activity of adjacent nerve tracts. This physiological interpretation is maintained in James's 'Principles of Psychology,'[2] which appeared ten years later.

Sumber: Warren, Howard C. 1921:241. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Mengenai *contrast,* dikaji oleh V. Brochard juga pada tahun 1880, yang membedakan 2 tipe asosiasi yaitu: (1) *mechanical connection* yang berdasarkan *contiguity* dan (2) *perception of resemblances.*

J. Mark Baldwin pada tahun 1889 membedakan antara *laws* dengan *forms* pada *association.* Merunut tulisan Baldwin, aslinya Hukum Asosiasi adalah korelasi, barulah hadir *laws of contiguity and resemblance.* Bladwin juga banyak mengkaji dan mendiskusikan tentang 2 bentuk asosiasi yaitu *coexistence* dan *succession,* hingga Baldwin menemukan bahwa koeksistensi atau *simultaneous occurence* adalah konsisi objek saat ini, bukan dihasilkan berdasarkan pengalaman.

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J. MARK BALDWIN distinguished in 1889 between the *laws* and *forms* of association.[8] The primary law of association is correlation; the secondary laws are contiguity and resemblance. Baldwin discusses the two forms of association (coexistence and succession), and finds that coexistence, or simultaneous occurrence, is a condition of the presented objects, not of the resulting experiences. Hence, succession is the one true form of contiguous reproduction.

Sumber: Warren, Howard C. 1921:242. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Alfred Lehmann pada 1889 membuat suatu percobaan untuk menentukan apa yang sebenarnya menjadi *real basis of association,* apakah *resemblance* atau *contiguity.* Kesimpulannya, *contiguity is the more fundamental mode, resemblance furnishes only a formal sort of association.* Harold Hoffding membantah kesimpulan Lehmann. Merunut tulisan Hiffding, *recognition, or identification of presentations* tergantung pada asosiasi justru melalui *similarity* atau *resemblance.* Hiffding menyimpulkan bahwa '*the fundamental law of association is the part-whole relationship*'.

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Karl Deffner membagi asosiasi menjadi dua jenis yaitu (1) *association by similarity and* (2) *experiental (habitual)* *association* . Merunut tulisan Deffner, asosiasi dapat menjadi *cause of the sequence of ideas.*

Theodore Ziehen menemukan bahwa tidak ada bukti yang jelas tentang *association by resemblance.*

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KARL DEFFNER,[1] a pupil and follower of Lipps, divides associations into two sorts: association by ***similarity*** and ***experiential*** (habitual) ***association***. Association by similarity he regards as the more important type. He believes association to be the ***cause*** of the sequence of ideas—not merely the ***manner*** in which they follow one another. It is a natural characteristic of mind to pass from one excitation to a similar excitation. Thus association is to be interpreted as a mental power or psychical disposition.

THEODOR ZIEHEN, on the other hand, experimenting on children, finds no clear evidence of association by resemblance.[2] The connection is frequently through certain ***common parts*** of the ideas, whereupon the remainder is recalled through contiguity.

Sumber: Warren, Howard C. 1921:244. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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EDWARD B. TITCHENER in his 'Outline of Psychology,' published in 1896, regards the fundamental classes of associations as (1) simultaneous and (2) successive. The traditional laws of association are only forms of association. Actually the ideas themselves do not associate, but only the elementary processes of which they are composed. In his 'Textbook'[3] he points out that the elements of a *perception* may never have been together in consciousness before, while in the case of an associated *idea* the elements have already many habitual connections. There is no essential difference between an idea and an association of ideas; but practically our ideas come to us ready-made, while our associations may be frequently new.

Sumber: Warren, Howard C. 1921:244. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Definisi Asosiasi Psikologi
Lewis mendefinisikan asosiasi sebagai proses pengelompokan *group* yang koneksinya tidak berdasarkan ikatan anatomis apapun (*association is the grouping of groups which are not connected by any necessary anatomical links*). Secara singkat, merunut tulisan Lewis, asosiasi adalah akuisi (*act of obtaining*).

Association, according to Lewes, is a special form of the process of Reinstatement. Reinstatement is grouping; association is " the grouping of groups which are not connected by any necessary anatomical links. Processes which depend on the native mechanism, although dependent on the connection of groups, are not called asso-

ASSOCIATION AND LOGICAL GROUPING 143

ciative processes. Association is acquisition."[1] Without discussing the laws of this restricted type of association at all systematically, Lewes refers his readers to Bain's exhaustive analysis, which he accepts in the main. He notes, however, two phenomena of association which Bain fails to take properly into account: (1) "The enormous influence of the emotional factor . . . in determining the reinstatement of images and ideas." (2) "The influence of obscure organic motors, manifested in the sudden irruption of incongruous states—the orderly course of association being burst in upon by images and ideas having none of the normal associative links."[2]

Sumber: Warren, Howard C. 1921:142-143. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Memang merunut tulisan Warren (1921:143), definisi Lewis ini dalam pengertian yang sempit karena Lewis dianggap kembali kepada *notion*-nya Locke tentang koneksi yaitu '*Wholly owing to chance or custom*'.
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It is not clear why Lewes restricts the meaning of the term *association* to such narrow limits. He goes even further than Spencer in this respect. Spencer limits the term to revival by similarity. Lewes makes it a sort of adventitious revival; he harks back to Locke's notion of a connection "wholly owing to chance or custom." His broad treatment of the process, however, fully warrants us in considering Lewes an associationist, in spite of his peculiar restriction of the term. Historically, *association* corresponds closely to what Lewes calls *grouping*, or *logical process*. And this logic, or grouping of elements, enters fundamentally into his system, as we shall see; it begins at the lowest and simplest states and follows through to the highest and most complex.

Sumber: Warren, Howard C. 1921:143. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Pemikiran Lewes yang penting bagi perkembangan Psikologi sebagai ilmu adalah tentang *sensibility* yang merupakan *material of psychology.* Meski *sensibility* merupakan faktor internal yang terdapat di dalam otak manusia, namun *sensibility* juga merupakan faktor eksternal berupa faktor-faktor fisik dan material yang mempengaruhi sensasi.

7. *Association and Logical Grouping*

Lewes starts with sensibility, which he uses as a general term for the material of psychology. The psychical organism evolves from 'psychoplasm,' or 'sentient material.' The psychoplasm is ever fluctuating; it is constantly being renewed, and these movements constitute the function of sensibility.[3] Sensibility is the internal factor, to which corresponds, on the physiological side, "the successions of neural tremors variously combining into neural groups"; [4] it includes both consciousness and subconsciousness.[5]

Sumber: Warren, Howard C. 1921:140. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Lewes merumuskan '*The Laws of Sensibility*' yang terdiri dari 3 prinsip mendasar yaitu: (1) *interest* yaitu pengetahuan tentang apa pengalaman yang akan dijalani (*know only what is sufficiently like former experiences to become*);

(2) *signature* atau tanda yang terdapat pada individu sebagai *specific identity* dari suatu pengalaman; dan (3) *experience or registration of feeling*.

There are three fundamental laws of sensibility: (1) *Interest:* "We see only what interests us, know only what is sufficiently like former experiences to become, so to speak, incorporated with them—assimilated by them."[1]

(2) *Signature:* Every feeling "has its particular signature or mark in consciousness, in consequence of which it acquires its objective localization, i.e., its place in the organism or in the cosmos."[2] Signature is Lewes's term for the individuality or specific identity of each particular sensation or experience.

(3) *Experience, or registration of feeling:* "Through their registered modifications, feelings once produced are capable of reproduction, and must always be reproduced, more or less completely, whenever the new excitation is discharged along the old channels."[3]

Sumber: Warren, Howard C. 1921:141. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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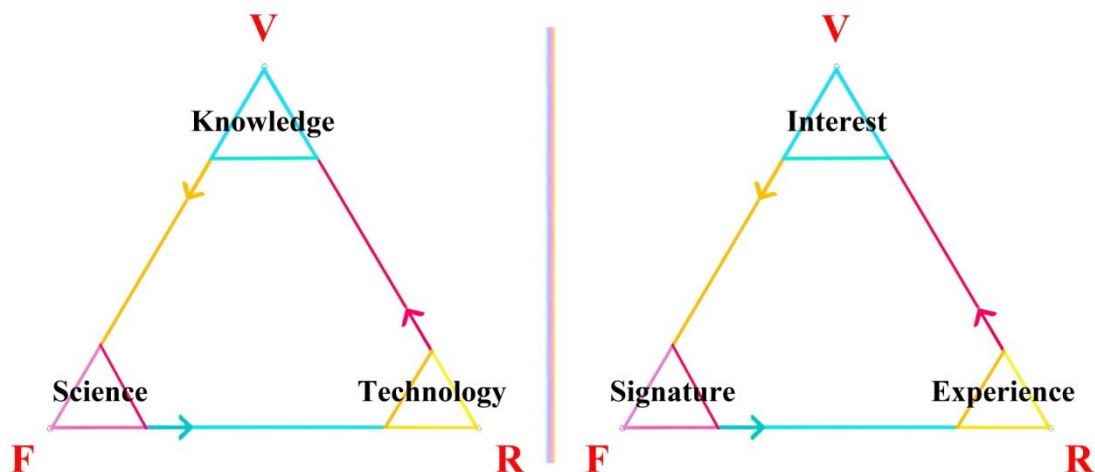
Dalam Segitiga Administrasi, *The Laws of Sensibility* dapat digambarkan seperti ini:

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Classifications of Association

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TABLE I.—Trautscholdt, 1883 [1]

I. External
- A. Simultaneous
  - 1. Part-Whole
    - a. Assoc. of Whole to Part
    - b. Assoc. of Part to Whole
    - c. Assoc. of Parts
  - 2. Assoc. of Independent Ideas
- B. Successive
  - 1. Auditory Impressions
    - a. In Original Order
    - b. In Altered Order
  - Special (Word Assoc.)
    - a. Completion of a Word
    - b. Completion of a Phrase
  - 2. Visual and Other Sense Impressions
    - a. In Original Order
    - b. In Altered Order

II. Internal
- 1. Superordination and Subordination
  - a. Assoc. of More General
  - b. Assoc. of More Specific
- 2. Coordination
  - a. Assoc. of Similar Impressions
  - b. Assoc. of Contrasted Impressions
- 3. Relations of Dependence
  - a. Casuality
  - b. Finality (Purpose or End)

TABLE II.—Wahle, 1885 [2]

1. Simultaneity
2. Immediate Succession
3. Contiguity in Space
4. "In Same Place"
5. Whole-Part Relationship
6. Causality, Finality, etc.
7. Resemblance
8. Contrast

Sumber: Warren, Howard C. 1921:248. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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TABLE III.—Cattell and Bryant, 1889 [1]

- I. Objective
  - A. Coexistence
    - Coordination 10-0
    - Whole to Part 34-0
    - Part to Whole 1-0
  - B. Succession
    - Forward 4-5
    - Backward 2-1
- II. Logical
  - C. Specification
    - Correlation 10-33
    - Specialization 19-31
    - Generalization 3-8
  - D. Causation
    - Final (Forward) 13-4
    - Efficient (Backward) 1-4

TABLE IV.—Offner, 1892 [2]

- I. Assoc. of Simultaneous Ideas
  - A. Pure Simultaneous Associations
  - B. So-called Assoc. by Similarity
    - a. Composite Ideas [Rejects]
    - b. Simple Ideas [Rejects]
  - C. So-called Assoc. by Contrast [Rejects]
  - D. Part-Whole, Subordinate-Superordinate [Based on Similarity]

Sumber: Warren, Howard C. 1921:249. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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TABLE V.—Kraepelin, 1892 [1]

- I. External
  - 1. Spatial and Temporal Coexistence
  - 2. Verbal Reminiscence
  - 3. Assonance
- II. Internal
  - 1. Coordination and Subordination
  - 2. Predication

TABLE VI.—Calkins, 1892-6 [2]

- I. Total or Concrete Assoc. of Objects
  - a. Without Appreciable Persistence
  - b. With Persistence
- II. Partial Assoc. of Elements (Persistent)
  - a. Successive Assoc.
    - 1. Multiple Assoc.
    - 2. Focalized Assoc.
  - b. Simultaneous Assoc. (Assimilation)

[Rejects Association by Similarity]

Sumber: Warren, Howard C. 1921:250. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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TABLE VII.—Aschaffenburg, 1896[1]

I. Immediate Association

- A. Stimulus-word Effective according to Meaning
  - a. Internal
    1. Coordination and Subordination
    2. Predicated Relation
    3. Causal Dependence
  - b. External
    1. Spatial and Temporal Coexistence
    2. Identity
    3. Verbal Reminiscence
- B. Stimulus-word Effective apart from Meaning
  - c. Sound of Word
    1. Completion of Words
    2. Assonance and Rhyme Assoc.
  - d. Mere Response
    1. Repetition of Stimulus-word
    2. Repetition of Earlier Response
    3. Assoc. with Earlier Stimulus
    4. No Observable Connection

II. Mediated Association

Sumber: Warren, Howard C. 1921:251. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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TABLE VIII.—Claparède, 1902[1]

- I. Without Significance
  1. Unexplained Association
  2. Association by Assonance
  3. Free Recall
- II. Significant
  - A. Mechanized: No Feeling of Relation
    1. Single Assoc. Evoked
       - a. Coexistence
       - b. Coordination
       - c. Subordination
       - d. Causation, etc.
    2. Choice of Assoc.
  - B. Actually Significant, Accompanied by Feeling of Relation
    1. Assoc. Predetermined
       - a. Coexistence, etc.

    (Intermediate Forms)

    2. Free Assoc.
       - i. Arising before Reaction
         - a. Coexistence, etc.
       - ii. Arising later but Determining Choice
         - a. Coexistence, etc.

[1] 'L'association des idées.'

Sumber: Warren, Howard C. 1921:252. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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TABLE IX A.—JUNG AND RICKLIN, 1904[1]

- I. Internal
  - 1. Coordination
  - 2. Predication
  - 3. Causal Dependence
- II. External
  - 1. Coexistence
  - 2. Identity
  - 3. Speech-motor Type
- III. Sound Reactions
  - 1. Completion of Word
  - 2. Assonance
  - 3. Rhyme
- IV. Residual Group
  - 1. Mediated Reaction
  - 2. Meaningless Reaction
  - 3. Errors.
  - 4. Repetition of Stimulus Word
- Characteristic Types
  - A. Perseverations
  - B. Egocentric Reactions
  - C. Repetitions
  - D. Linguistic Relations

TABLE IX B.—JUNG, 1907[2]

1. Coordination
2. Subordination and Superordination
3. Contrast
4. Predication: Personal Judgment (e.g., prick—hurt)
5. Ordinary Predication
6. Relation of Verb to Subject or to Object
7. Place, Time, Means, End, Substance, etc.
8. Definition
9. Coexistence
10. Identity
11. Verbal-motor Association
12. Formation of Words (Compounds, etc.)
13. Completion of a Word
14. Assonance (Rhyming)
15. Defective Reactions

[1] *Op. cit.*
[2] Associations d'idées familiales. *Arch. de psychol.*, 7.

Sumber: Warren, Howard C. 1921:253. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).
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TABLE X.—ARNOLD, 1906[1]

- A. Development of a Psychophysical Disposition
  - 1. Development
    - a. Fusion
    - b. Assimilation
    - c. Complication
  - 2. Interconnection (as System)
  - 3. Impulse to Pass On
  - 4. Disposition of the Whole as a Trace
- B. Recall
  - 1. A-Phenomenon, due to
    - a. Fusion
    - b. Assimilation
    - c. Complication
  - 2. B-Phenomenon, Free Revival

TABLE XI.—SOLLIER, 1907[2]

- I. Constitutional (Static, Anatomical)
- II. Acquired (Dynamic, Physiological)
  - 1. Motor
  - 2. Cœnesthetic
  - 3. Affective
  - 4. Sensitive
  - 5. Sensorial
  - 6. Representative
  - 7. Ideological
  - A. Fixed
    - 1. Reciprocal
    - 2. Reversible
    - 3. Irreversible
  - or
  - B. Evolutionary
    - 1. Crystallization
    - 2. Instability
    - 3. Dissolution

[1] 'Psychology of association.'
[2] 'Essai sur l'association en psychologie.'

Sumber: Warren, Howard C. 1921:254. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).
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TABLE XII.—WRESCHNER, 1907-9[1]

- I. Verbal
  - 1. Auditory or Visual Similarity
  - 2. Completion of Word
- II. Significant
  - A. Perceptual
    - 1. Spatial, and Whole-Part
    - 2. Temporal
  - B. Conceptual
    - 1. Contrast
    - 2. Similarity
    - 3. Synonym
    - 4. Subordination
    - 5. Specification
    - 6. Cause
    - 7. Effect
    - 8. Other Relations
  - C. Connections
    - 1. Spatial or Temporal
    - 2. Predication
- III. Manifold Relations
- IV. Mediated Associations
- V. Unidentifiable

TABLE XIII.—WELLS, 1911[2]

- 1. Egocentric
  - a. Reactions of Modification (e.g., flower—pretty)
  - b. Response is Proper Noun
  - c. Stimulus Interpreted as Proper Noun
  - d. Response Involves Pronoun
  - e. No Response; or Repetition of Stimulus
- 2. Supraordination (Individual-Genus)
- 3. Contrast
- 4. Miscellaneous
  - a. Causality
  - b. By Name
  - c. Coordination
  - d. Subordination
  - e. Coexistence
  - f. Identity (Synonyms)
- 5. Speech Habits
  - a. Language
  - b. Completing or Compounding of Words
  - c. Pure Sound
  - d. Syntactic Changes

[1] *Op. cit.*
[2] A preliminary note on the categories of association reactions. *Psychol. Rev.*, **18**.

Sumber: Warren, Howard C. 1921:255. A History of the Association Psychology. New York: Charles Scribner's & Sons.
Gambar dibuat oleh Levri Ardiansyah (2016).

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enis Hubungan dan Tingkat Keterhubungan

Jenis hubungan (*kinds of relation*) merupakan aspek kualitatif dari asosiasi, sedangkan tingkat keterhubungan (*degrees of relationship*) merupakan aspek kuantitatif asosiasi yang diukur dari kekuatan hubungan. *Kinds of relation* dikenal juga sebagai *Qualitative Laws of Association* dan *degrees of relationship* dikenal sebagai *Quantitative Laws of Association.* Tulisan Warren (1921:282) tentang hal ini dapat dibaca pada gambar berikut:

The associationists observed certain regularities in the succession and grouping of experiences, and on the basis of these uniformities they formulated their laws of association. Most of these writers, however, fail to distinguish clearly between the *kinds* of relation and the *degrees* of relationship—that is, between the qualitative and the quantitative aspects of association. As a result two sorts of 'laws' are often confused, as when J. S. Mill combines the two heterogeneous classes into a single set of associative principles. In reality the *means* of association and the *amount* of associativeness constitute quite separate problems. One problem is to discover what relations exist between the data associated together; the second is to determine the quantitative factors which measure the strength of this relation.

Sumber: Warren, Howard C. 1921:282. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Locke menemukan 4 faktor yang menentukan *degrees of association* yaitu: (1) *attention;* (2) *repetition;* (3) *habit* dan (4) *the pleasure-pain accompaniment of the original experience.*

***Degrees of Relation: Quantitative Laws of Association.*—As early as Aristotle the role of habit in the associative process was noted. From the time of Descartes and Hobbes nearly every writer on association emphasized this factor. Locke, though he gave little heed to the qualitative relations, attempted a searching quantitative analysis. He finds four factors which determine the *degree* of association: attention, repetition, habit, and the pleasure-pain accompaniment of the original experience. Hartley emphasizes the importance of frequent repetition in determining the actual course of association, and other writers of this period dwell on one or other of Locke's factors.**

Sumber: Warren, Howard C. 1921:285. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Consolidated Experience as the Resilt on side of Consciousness

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The two principles of Psychophysical Relation and Association are the instruments employed by associational psychologists to explain, account for, derive, or construct the entire framework and superstructure of consciousness. Both simultaneous and successive association operate to build up the derivative forms of experience. Perception means simultaneous association; by this process separate sensations which occur together in consciousness are grouped into single unitary experiences. The underlying physiological basis of perception is the passage of neural energy from center to center in the brain. The result on the side of consciousness is a *consolidated experience* which functions as a unit.

Sumber: Warren, Howard C. 1921:293. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Diagram Asosiasi Psikologi

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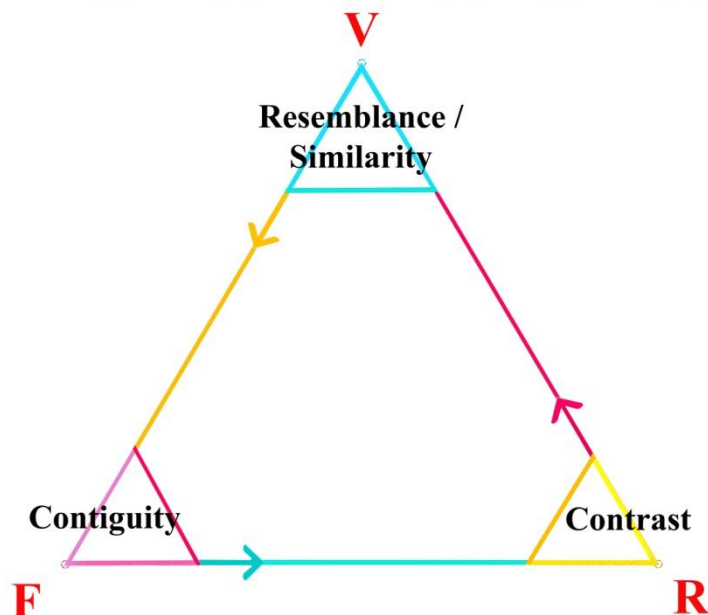
Diagram Asosiasi Psikologi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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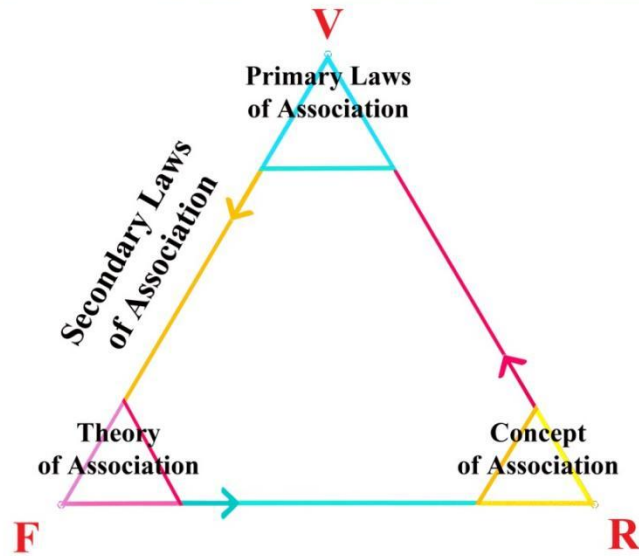
Diagram Hukum Kedua Asosiasi Psikologi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Definisi Asosiasi

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Asosiasi: (1) koneksi dan (2) sekuen

The same method of treatment is found in several English discussions of the association problem. F. H. Bradley, examining the thought process in 1887, finds association inadequate to account for its connections and sequences. The underlying motive for the flow of thought is the *end* or purpose determined beforehand.[1]

Sumber: Warren, Howard C. 1921:214. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

koneksi: ungkap tentang *relation of class to member* yang berbeda dengan *relation of whole to parts.*

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3. *Reaction Time of Association*

Galton's attempt to time the associative process was repeated under more exact laboratory conditions by Wundt's pupils.

JAMES MCKEEN CATTELL carried out in the Leipzig laboratory in 1887 a series of experiments on the reaction time for various mental processes, including perception, recognition, discrimination, and association.[1] In the association experiments the stimulus consisted of printed words exposed in connection with a timing apparatus. The subject pronounced the first word associated with the stimulus; the lip movement of the response marked the end of the reaction and measured the time automatically. The association time was found to vary within wide limits according to the type of association involved. For one subject the relation of *class* to *member* (e.g. river—Rhine) averaged 727σ; while the relation of *whole* to *part* where the objects were exhibited in pictures (e.g. ship—sail) averaged only 358σ.[2] In later experiments with untrained subjects much longer association times were found.

Sumber: Warren, Howard C. 1921:222. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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sekuen terdiri dari *repetition and lapse time*

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J. Mark Baldwin pada tahun 1889 membedakan antara *laws* dengan *forms* pada *association.* Merunut tulisan Baldwin, aslinya Hukum Asosiasi adalah korelasi, barulah hadir *laws of contiguity and resemblance.* Bladwin juga banyak mengkaji dan mendiskusikan tentang 2 bentuk asosiasi yaitu *coexistence* dan *succession,* hingga Baldwin menemukan bahwa koeksistensi atau *simultaneous occurence* adalah kondisi objek saat ini, bukan dihasilkan berdasarkan pengalaman.

J. MARK BALDWIN distinguished in 1889 between the *laws* and *forms* of association.[8] The primary law of association is correlation; the secondary laws are contiguity and resemblance. Baldwin discusses the two forms of association (coexistence and succession), and finds that coexistence, or simultaneous occurrence, is a condition of the presented objects, not of the resulting experiences. Hence, succession is the one true form of contiguous reproduction.

Sumber: Warren, Howard C. 1921:242. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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notion-nya Locke tentang koneksi yaitu '*Wholly owing to chance or custom*'.

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It is not clear why Lewes restricts the meaning of the term *association* to such narrow limits. He goes even further than Spencer in this respect. Spencer limits the term to revival by similarity. Lewes makes it a sort of adventitious revival; he harks back to Locke's notion of a connection " wholly owing to chance or custom." His broad treatment of the process, however, fully warrants us in considering Lewes an associationist, in spite of his peculiar restriction of the term. Historically, *association* corresponds closely to what Lewes calls *grouping*, or *logical process*. And this logic, or grouping of elements, enters fundamentally into his system, as we shall see; it begins at the lowest and simplest states and follows through to the highest and most complex.

Sumber: Warren, Howard C. 1921:143. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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ada juga yang membedakan *successive* dengan *simultaneous*

EDWARD B. TITCHENER in his 'Outline of Psychology,' published in 1896, regards the fundamental classes of associations as (1) simultaneous and (2) successive. The traditional laws of association are only forms of association. Actually the ideas themselves do not associate, but only the elementary processes of which they are composed. In his 'Textbook'[3] he points out that the elements of a *perception* may never have been together in consciousness before, while in the case of an associated *idea* the elements have already many habitual connections. There is no essential difference between an idea and an association of ideas; but practically our ideas come to us ready-made, while our associations may be frequently new.

Sumber: Warren, Howard C. 1921:244. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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asosiasi terdiri dari fusi (*fusions*), asimilasi (*assimilations*), komplikasi (*complications*), dan sambung menyambung menjadi satu (*successive*)

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4. Association and Apperception

WILHELM WUNDT'S (1832-1920) contributions to the investigation of association are exceedingly important, but they are for the most part indirect. He set many experimental problems, which his students worked out. These are mentioned elsewhere in this chapter. Wundt's personal contributions are more difficult to estimate. In his monumental work, the 'Grundzüge'[1] he devotes most of the section on association to the description and discussion of experimental results.

A characteristic feature of his theoretical treatment is the distinction between *association* and *apperceptive connection*. The latter he regards as a higher sort of connection, based upon association. In apperceptive connections the 'apperceptive' function operates; a feeling of activity is subjectively present, and the connection is determined (objectively) not merely by the idea aroused, but by the entire previous development of consciousness. Wundt classifies the two types as follows:

Associations	Apperceptive Connections (Complex Apperceptions)
Fusions	
Assimilations	Synthetic Apperceptions
Complications	Analytic Apperceptions
Assimilative Memory Associations	Synthetic-analytic Apperceptive Processes
Successive Memory Associations	
Apperceptive-associative Stream of Thought	

Since apperceptive connections rest on association, Wundt holds that all changes of ideas, so far as they are not due to direct sensory stimulation, depend ultimately upon the associative process.[2]

Sumber: Warren, Howard C. 1921:224. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Real basis of association

Alfred Lehmann pada 1889 membuat suatu percobaan untuk menentukan apa yang sebenarnya menjadi *real basis of association,* apakah *resemblance* atau *contiguity.* Kesimpulannya, *contiguity is the more fundamental mode, resemblance furnishes only a formal sort of association.* Harold Hoffding membantah kesimpulan Lehmann. Merunut tulisan Hiffding, *recognition, or identification of presentations* tergantung pada asosiasi justru melalui *similarity* atau *resemblance.* Hiffding menyimpulkan bahwa '*the fundamental law of association is the part-whole relationship*'.

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Istilah *association* biasa digunakan oleh psikolog Inggris pada abad ke-18 dan abad ke-19 dalam definisinya sebagai rangkaian fakta berulang pada periode tertentu (*sequences*) yang terjadi dalam rangkaian elemen memori atau imaginasi atau pikiran. Warren (1921:6) dalam bukunya yang berjudul '*A History of the Association Psychology*' menulis,'*The term association as used by English psycologist of the eighteenth and nineteenth centuries, applies primarily to the sequences that occur in trains of memory or imagination ir thought*'. Berdasarkan definisi Warren ini, penulis dapat menyimpulkan kalimat singkat yang lebih mudah dipahami oleh mahasiswa Ilmu Administrasi, bahwa *association* adalah rangkaian fakta berulang. Dengan definisi ini, menjadi jelas bagi kita bahwa asosiasi bukanlah merupakan perkumpulan, perserikatan, institusi atau organisasi sebagaimana dipahami oleh sebagian kalangan. Sebagai rangkaian fakta yang berulang, *association* terkait erat dengan istilah *sequences, series, trains* dan siklus (*cycle*). Sebagai contoh asosiasi diantaranya adalah *serial order,* dan *cell cycle.*

Hobbes mengartikan *association* sebagai '*mental discourse*', Tucker mengartikannya sebagai '*translation*' dan Thomas Brown lebih suka menggunakan kata '*suggestion*' sebagai pengganti kata *association.* Dalam pengertian yang semacam ini, *association* merupakan pengalaman yang terjadi berdasarkan relasi-relasi tertentu. Dalam pandangan yang sempit, konsep *association* merupakan prinsip yang digunakan untuk melakukan induksi terhadap serangkaian ide-ide tertentu (*conceived as the principle by which trains of ideas are induced*).

2. *Definitions of Association*

The term *association,*[1] as used by the English psychologists of the eighteenth and nineteenth centuries, applies primarily to the *sequences* that occur in trains of memory or imagination or thought: their problem was to formulate the principles involved in such sequences. According to the view generally adopted by these thinkers, one such experience follows another through certain definite relationships. Thus, one idea may serve to recall another which *resembles* it or which was *contiguous* to it in former experience. Here we have the narrowest view of association, conceived as the principle by which trains of ideas are induced. Starting with this fundamental conception, the scope of the principle has been broadened in various directions.

Sumber: Warren, Howard C. 1921:006. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Istilah '*association of ideas*' pertama kali dikumandangkan oleh John Locke pada tahun 1667 melalui publikasi yang dilakukan oleh Marin Cureau de La Chambre dalam tulisannya yang berjudul '*Systeme de l'ame*' (Warren, 1921:3). Pada tahun 1700, dalam '*Essay concerning Human Understanding*' Locke kembali menjelaskan tentang *association of ideas* sebagai koneksi antar-pengalaman (*the connections between experiences*). Merunut tulisan Locke, beberapa ide memiliki kecocokan dan keterkaitan satu sama lain secara alamiah. Dalam tulisannya Warren (1921:5) menjelaskan bahwa manakala Locke berbicara tentang *association of ideas,* maka yang dimaksud adalah beragam koneksi yang mungkin terjadi diantara *all sorts of mental content.* Dalam kalimat yang sederhana, penjelasan Locke ini adalah tentang '*mental association*' yang kerap kali ditekankan Locke sebagai *the fact*. Ilmuwan lainnya, Hobbes memandang *association* sebagai *mode of succession of ideational experiences in generally adopted as a starting-point in the analysis.*

Jauh sebelum Locke, doktrin tentang asosiasi yang kemudian dikenal sebagai *laws of association* telah dirumuskan oleh Aristotle yang sebenarnya lebih merupakan petunjuk (*hint*) tentang *association of sensation* yang terdiri dari *resemblance (similarity), contiguity* dan *contrast*. Kata *resemblance* dan *similarity* yang dimaknai sebagai persamaan sebenarnya memiliki pengertian yang berbeda. Merunut tulisan Warren (1921:7), secara etimologis, *similarity*

merupakan kemiripan (*likeness*) diantara keserasian berbagai faktor, sedangkan *resemblance* merupakan kemiripan satu benda terhadap benda lainnya. Warren mencontohkan, 2 orang asing bisa jadi memiliki *similarity* dengan penampilan keduanya yang tampak serasi. Seorang anak lelaki dapat *resemble* ayahnya, karena ayahnya *be resembled* oleh anak tersebut. Contoh lain, uang 2 dollar dapat kita nilai sebagai *similar,* tetapi uang dolar palsu *resembles* terhadap uang dolar asli.

[1] The two words ***similarity*** and ***resemblance*** are not distinguished in the discussion. Some writers prefer one or the other; some use the two indiscriminately. Etymologically, similarity appears to be a likeness between coordinate factors, resemblance a likeness ***of*** one thing ***to*** another. Thus, two strangers may be of ***similar*** appearance, while a son may ***resemble*** his father, and the father ***be resembled by*** the son; two dollar bills are ***similar***, but a counterfeit ***resembles*** the real dollar. If this distinction be brought over into psychology, two ideas should be termed ***similar*** or ***resembling*** according as they are coordinate or one depends on the other, but an idea can only ***resemble*** a sensation. This mode of association, then, would be termed similarity or resemblance according to the form of the doctrine which a given writer holds.

Sumber: Warren, Howard C. 1921:007 A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

Di dalam Psikologi, *contiguity* atau yang juga dikenal sebagai '*The Laws of Contiguity*' merupakan sensasi untuk mengingat kembali pengalaman yang baru saja terjadi, sedangkan *similarity* yang juga dikenal sebagai '*The Laws of Similarity*' merupakan pengalaman yang terjadi mengingatkan kembali pada pengalaman yang serupa.

The Law of Contiguity is generally stated in substantially the following terms: " A sensation or idea tends to recall other experiences which formerly occurred in close proximity to it." The Law of Similarity is generally formulated as follows: " An experience tends to recall experiences which resemble it."

The two relations of similarity and contiguity are typical of the association standpoint, and are generally coupled together. Certain writers, however, emphasize one at the expense of the other, or reduce one to terms of the other. Thus Spencer makes ***likeness*** the sole basis of association and reduces contiguity to " likeness of relation." More commonly, resemblance (similarity) is subordinated to ***contiguity***.

Sumber: Warren, Howard C. 1921:283. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sedangkan *contrast* merupakan rangkaian fakta yang berbeda-beda (*association of unlike*) berdasarkan pengalaman (*habitual connection*). Tulisan Warren (1921:8) tentang hal ini dapat dibaca pada gambar berikut ini:

The association of unlike or contrasted experiences has been recognized by some as an additional principle, following the view of Aristotle, while by others it is regarded as merely a particular phase of the two laws already mentioned.

Sumber: Warren, Howard C. 1921:008. A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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Kedua prinsip yaitu *resemblance* dan *contiguity* ini dirangkum menjadi satu prinsip dalil hukum (*one single law*) yang dikenal sebagai *'Redintegration or Reinstatement'*. Fakta yang termasuk ke dalam *reinstatement* adalah pengalaman masa lalu yang terasosiasi dengan pengalaman saat ini.

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Resemblance dan *similarity* menempati poin ungu karena keduanya menunjukan (1) keserasian; (2) kemiripan yang dipersamakan, seperti manusia yang mempersamakan kekuatan alam dengan Tuhan, berdasarkan pengalaman; dan (3) sesungguhnya didalam persamaan terdapat perbedaan yang kontradiktif.

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Contiguity berarti kita belajar dari pengalaman yang baru saja terjadi sehingga kita menjadi tahu. Dalam konteks ini *contiguity* berada dalam poin yang sama dengan *science as to know.*

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Contrast dtempatkan pada poin kuning karena *contrast* merupakan *habitual connection* dan *association unlike.*

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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associational analysis a
associative processes
effect of associations

[1] The two words *similarity* and *resemblance* are not distinguished in the discussion. Some writers prefer one or the other; some use the two indiscriminately. Etymologically, similarity appears to be a likeness between coordinate factors, resemblance a likeness *of* one thing *to* another. Thus, two strangers may be of *similar* appearance, while a son may *resemble* his father, and the father *be resembled by* the son; two dollar bills are *similar*, but a counterfeit *resembles* the real dollar. If this distinction be brought over into psychology, two ideas should be termed *similar* or *resembling* according as they are coordinate or one depends on the other, but an idea can only *resemble* a sensation. This mode of association, then, would be termed similarity or resemblance according to the form of the doctrine which a given writer holds.

Sumber: Warren, Howard C. 1921:007 A History of the Association Psychology. New York: Charles Scribner's & Sons. Gambar dibuat oleh Levri Ardiansyah (2016).

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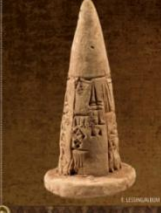
6

The Origins of Administration

The History of Administration

Menguraikan sejarah praktik administrasi merupakan upaya '*to capture and record administrative experience*'. Istilah ini tercetak pada tulisan Gulick, Luther (1937: 195) berjudul '*Science, Value and Public Administration*' yang merupakan satu dari sepuluh tulisan terkumpul pada buku yang diedit oleh Gulick, Luther and Urwick, L., (1937) berjudul '*Papers on the Science of Administration'* (New York: Institute of Public Administration, Columbia University).

Code of Hammurabi

Saat masih mahasiswa S1 Jurusan Administrasi Negara, saya terkesan pada materi perkuliahan 'Sejarah Pemikiran Teori Administrasi' yang disampaikan oleh dosen saya. Bay Suryawikarta, PhD. khuusnya mengenai '*Code of Hammurabi*'.

minister, service, slave, code of hammurabi

Pada majalah *National Geographic History* tercetak foto '*Hammurabi, the first king of Babylonian Empire*' (Gallego, Alejandro. 2015: 32 & 33. *Finding the Code of Hammurabi.* National Geographic. August/September 2015. *National Geographic History*. Washigton D.C.: National Geographic Society) yang saya kutip seperti ini:

Sumber: Gallego, Alejandro. 2015: 32 & 33. National Geographic. August/September 2015. National Geographic History. Washigton D.C.: National Geographic Society Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada majalah *National Geographic History* (August/September 2015: 34 & 35) tercetak lintasan sejarah singkat baik politik maupun hukum sejak *The Uruk Period* (4000-3100 B.C.) hingga Hammurabi (1792 B.C.) yang saya kutip seperti ini:

Sumber: Gallego, Alejandro. 2015: 34 & 35. National Geographic. August/September 2015. National Geographic History. Washigton D.C.: National Geographic Society Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Cook, Stanley A (1903: v) berjudul '*The Laws of Moses and the Code of Hammurabi'* (London: Adam and Charles Black) tercetak '*...Hammurabi, the king whose name has been identified with Amraphel, the contemporary of Abraham (Gen. xiv0*'. Kutipannya saya sajikan berupa gambar ini:

PREFACE

THE chief aim of the present study is to provide a full account of the contents of the recently discovered Babylonian Code of laws promulgated in the twenty-third century before Christ by Ḫammurabi, the king whose name has been identified with Amraphel, the contemporary of Abraham (Gen. xiv.). The fact that it is the oldest collection of laws in existence, and the advanced state of culture which Babylonia had reached even at that remote period, make the Code one of the most notable discoveries in the history of cuneiform research, and the great interest which it has succeeded in arousing is evinced by the rapidly growing number of monographs, pamphlets, and articles which have already appeared in print.

Sumber: Cook, Stanley A. 1903: v. The Laws of Moses and the Code of Hammurabi. London: Adam and Charles Black. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada majalah *National Geographic History* (August/September 2015: 39) tercetak foto '*Moses*' yang saya kutip seperti ini:

Sumber: Gallego, Alejandro. 2015: 39. National Geographic. August/September 2015. National Geographic History. Washigton D.C.: National Geographic Society Gambar disajikan oleh Levri Ardiansyah (2017).

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Code of Hammurabi ditemukan oleh M. de Morgan berkebangsaan *French* dan kini tersimpan di *British Museum* berupa '*... a stone of black diorite*'. Pada buku karya Cook, Stanley A (1903: 4 & 5) berjudul '*The Laws of Moses and the Code of Hammurabi'* (London: Adam and Charles Black) tercetak '*It consisted of a stone of black diorite nearly eight feet high, and was in three fragments, which readily admitted of being joined together*'. Kutipannya berupa gambar ini:

This welcome discovery was made by the French excavation under the superintendence of M. de Morgan at the great mound known as the Acropolis of Susa[1] in December 1901-January 1902, a fitting celebration of the centenary of that study which has done so much for the history of ancient civilisation. It consisted of a stone of black diorite nearly eight feet high, and was in three fragments, which readily admitted of being joined together. The upper part bore a representation of the sun-god Šamaš, from whom Ḫammurabi received the laws with which the rest of the stone is covered. The sun-god is seated upon a raised throne. He wears the well-known swathed head-gear, and a flounced robe. Behind his shoulders rays spring out, and in his right hand he clasps a sceptre,[2] the symbol of authority, and a

CHAP. I THE CODE OF ḪAMMURABI 5

wheel or ring. The king stands before Šamaš in an attitude of reverent obedience. He is clothed in a long tunic, which is hemmed in at the waist and hangs down in folds, and upon his head he wears a cap with fillet. His right hand is at his mouth, his left hand rests against the waist, precisely as in the familiar portrait sculpture of the king in the British Museum.[1] Like the sun-god, he wears the familiar artificially plaited beard.

Sumber: Cook, Stanley A. 1903: 4 & 5. The Laws of Moses and the Code of Hammurabi. London: Adam and Charles Black. Gambar disajikan oleh Levri Ardiansyah (2017).

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Sayangnya, 5 kolom terhapus dan 35 *sections* hilang. Pada buku karya Cook, Stanley A (1903: 8 & 9) berjudul '*The Laws of Moses and the Code of Hammurabi*' (London: Adam and Charles Black) tercetak seperti ini:

This is immediately followed by the Code itself, which commences with two laws relating to witchcraft (§ 1 *sq.*), followed by three dealing with witnesses and judges (§§ 3-5). A series of laws on theft (§§ 6-8), and stolen property found in the hands of another (§§ 9-13), leads up to kidnapping (§ 14) and fugitive slaves (§§ 15-20), and ends with burglary and brigandage (§§ 21-25). Another series deals with the duties and privileges of "gangers" and "constables" (§§ 26-41). Next follow the land-laws, and provisions relating to the cultivation of fields (§§ 42-56), the responsibilities of herdsmen (§ 57 *sq.*), and various enactments concerning gardeners (§§ 59-65). This ends on the foot of the sixteenth column. Five columns have been erased,

CHAP. I THE CODE OF ḪAMMURABI 9

probably by the Elamites, with the purpose already mentioned above (p. 6), and it is estimated that thirty-five sections have been lost. Elsewhere,[1] ancient Babylonian laws have been recovered containing other laws relating to agriculture and to the letting of houses, and it has been plausibly conjectured that they form part of the sections here missing. The laws which commence again on the obverse of the monument deal with merchants and

Sumber: Cook, Stanley A. 1903: 8 & 9. The Laws of Moses and the Code of Hammurabi. London: Adam and Charles Black. Gambar disajikan oleh Levri Ardiansyah (2017).

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Ea, the messenger of the Gods, ... to close up the source of the rivers, and not to cause the Earth to produce corn ...'. Pada buku karya Cook, Stanley A (1903: 13 & 14) berjudul '*The Laws of Moses and the Code of Hammurabi'* (London: Adam and Charles Black) tercetak seperti ini:

u zi-kir-šu), may he decree. May Belti, the great mother, annul his projects before Bel in the Place of Justice and Law, to ruin his country, to destroy his subjects, to pour out his life like water. Similarly, Ea, the messenger of the gods, the all-knowing, is invoked to deprive that king of under-

14 THE LAWS OF MOSES CHAP. I

standing and wisdom, to lead him into oblivion, to close up the source of the rivers, and not to cause the earth to produce corn, "the life of men." Next, Šamaš, "the great judge of heaven and earth," is called upon to destroy his kingdom, to send him in his dreams (*i-na bi-ri-šu*) evil premonitions of the decay of his throne, to hinder his martial successes; "from above, among the living, may he snatch him away, and deprive his departed shades of water."

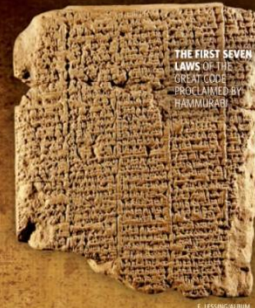
Sumber: Cook, Stanley A. 1903: 13 & 14. The Laws of Moses and the Code of Hammurabi. London: Adam and Charles Black. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada majalah *National Geographic History* (August/September 2015: 41) tercetak foto '*The Laws of Hammurabi*' tentang kehidupan keluarga seperti ini:

TO THE LAWS OF FAMILY LIFE

The Code of Hammurabi considers many scenarios for divorce.
"If a man wishes to separate from a woman who has borne him children . . . then he shall return that wife her dowry, and a part of the field, garden, and property, with which she can raise her children . . . She may then marry."
Women were also permitted to request a divorce.
"An investigation is carried out among her neighbors . . . If she is guiltless, and there is no fault on her part, [and if] he walks out on her and neglects her, then no guilt attaches to this woman. She shall take her dowry and return to her father's house."

Hammurabi's laws also punished adultery severely.
"If a man's wife be discovered with another man, both shall be tied together and thrown into the water."
The same laws, however, also rule that a husband could forgive his wife and the king could pardon her lover.
A woman suspected of adultery underwent ordeal by water.
"If a woman is pointed out [by public opinion] as being unfaithful with another man, but she is not caught sleeping with the other man, she shall jump into the river for her husband."
If the accused woman survived the immersion, she would be declared innocent.

The laws of Hammurabi rule that if a son commits two grievous offenses against his father, a judge can disinherit him. Even in an extreme case, such as a son assaulting his father, the child would suffer amputation rather than capital punishment.
"If a son strike his father, his hands shall be cut off."
The code set limits on patriarchal authority. A father could not automatically disinherit his son, and would have to follow a proper legal procedure.
"If a man wish to put his son out of his house . . . then the judge shall examine into his reasons. If the son be guilty of no great fault, for which he can be rightfully put out, the father shall not put him out."

THE FIRST SEVEN LAWS OF THE GREAT CODE PROCLAIMED BY HAMMURABI

E. LESSING/ALBUM

THE LAWS OF HAMMURABI

Family law in the Babylonian code is more egalitarian than its Hebrew counterpart. Marriage in Israel was understood to be the purchase of a woman, and only men could ask for divorce. However, in Babylonia separation could also be requested by women. Both Mosaic and Babylonian law included some severe practices, like ordeals for adulterous women, but children are treated more compassionately by Hammurabi's code.

HAMMURABI STANDING IN THE PRESENCE OF THE GOD SHAMASH, AT THE TOP OF THE STELA THAT CARRIED HIS FAMOUS LEGAL CODE

E. LESSING/ALBUM

Sumber: Gallego, Alejandro. 2015: 41. National Geographic. August/September 2015. National Geographic History. Washigton D.C.: National Geographic Society Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Cook, Stanley A (1903: xiv) berjudul '*The Laws of Moses and the Code of Hammurabi'* (London: Adam and Charles Black) tercetak aturan tentang keluarga yang terpaparkan 3 bab yakni *chapter IV, V* dan *VI.* Kutipannya terbaca pada gambar ini:

CHAPTER IV

THE FAMILY

CHAPTER V

THE FAMILY (*continued*)

CHAPTER VI

THE FAMILY (*concluded*)

Sumber: Cook, Stanley A. 1903: xiv. The Laws of Moses and the Code of Hammurabi. London: Adam and Charles Black. Gambar disajikan oleh Levri Ardiansyah (2017).

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Aturan lainnya adalah tentang perbudakan dan tenaga kerja, pertanahan dan pertanian, perdagangan dan komersil, serta perlindungan manusia. Pada buku karya Cook, Stanley A (1903: xiv & xv) berjudul '*The Laws of Moses and the Code of Hammurabi'* (London: Adam and Charles Black) tercetak:

Sumber: Cook, Stanley A. 1903: xiv & xv. The Laws of Moses and the Code of Hammurabi. London: Adam and Charles Black. Gambar disajikan oleh Levri Ardiansyah (2017).

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Ancient Chinese Administration

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Pada buku karya Mayers, William Frederick (1896) berjudul '*The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair'* (Shanghai: Kelly and Walsh, Limited) tercetak istilah '*Municipal Administration'* dan '*Provinvial Administration*'. Kutipannya tergambar seperti ini:

TABLE OF CONTENTS.

APPENDIX.

Sumber: Mayers, William Frederick. 1896:. The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair. Shanghai: Kelly and Walsh, Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Mayers, William Frederick (1896: 2 & 3) berjudul '*The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair'* (Shanghai: Kelly and Walsh, Limited) tercetak istilah '*Ministers of State collectively*' yang pada Bahasa *Chinese* terbaca '*Ch'aw I Ta Ch'en*' atau '*Ping Ch'uan Ta Ch'in*'. Terdapat juga cetakan istilah '*head of the State*' yang pada Bahasa *Chinese* terbaca '*Ch'ao T'ing*' atau '*Kuo Kia*'. Kutipannya tergambar seperti ini:

II.—Designations of Governments, Departments of State, and Public Functionaries.

The Government [head of the State].—*Ch'ao T'ing* 朝廷, or *Kuo Kia* 國家.[31]

The Government [Ministers of State collectively.—*Ch'ao I Ta Ch'ên* 朝議大臣, or *Ping Ch'uan Ta Ch'ên* 秉權大臣. Also, *T'ing Ch'ên* 廷臣.

[31] It should be noted also that the word *Kuo* 國 alone is not unfrequently used in the sense of "Government," in which case it is elevated (*tan t'ai*) by one space above the general column level [*see* Part II, *ante*]. Thus, in the combination *Ying Kuo* 英國, elevation as above stated would convey the meaning "British Government;" whereas, when employed without elevation, the same characters would signify "England" (or Great Britain), "British" or "English," without reference to the Sovereign or the Government.

Sumber: Mayers, William Frederick. 1896: 144. The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair. Shanghai: Kelly and Walsh, Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada bukunya ini, Mayers menggunakan kata '*government*' dan '*administration*' secara bergantian untuk makna yang sama. Pada bukunya (Mayers, William Frederick, 1896: 12) tercetak '*The Central Government of China, so far as a system of this nature is recognized in the existing institutions, is arranged with the object rather of registering and checking the action of the various provincial administrations, than with that of assuming a direct initiative in the conduct of affairs. The Empire proper is divided into eighteen provincial governments, to which are to be added the three eastern provinces, constituting the territory of Manchuria, and organized on a more or less military basis*'. Kutipannya tergambar seperti ini:

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12 PART II.—METROPOLITAN ADMINISTRATION.

PART II.–METROPOLITAN ADMINISTRATION.

The Central Government of China, so far as a system of this nature is recognized in the existing institutions, is arranged with the object rather of registering and checking the action of the various provincial administrations, than with that of assuming a direct initiative in the conduct of affairs. The Empire proper is divided into eighteen provincial governments, to which are to be added the three eastern provinces, constituting the territory of Manchuria, and organized on a more or less military basis. Beyond the limits of China proper are the subject territories of Mongolia and Tibet, and until recently the tribute-paying nations of Corea, Anam, Burmah, Siam, and Nepal. On various parts of

Sumber: Mayers, William Frederick. 1896: 12. The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair. Shanghai: Kelly and Walsh, Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

Bahkan terdapat juga istilah '*The Central Government*' dan '*The Central Administration*'. Pada buku karya Mayers, William Frederick (1896: 12) berjudul '*The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair'* (Shanghai: Kelly and Walsh, Limited) tercetak '*The Central Government may be said to criticize rather than to control the action of the twenty-one provincial administrations, wielding, however, at all times, the power of immediate removal from his post of any official whose conduct may be found irregular or considered dangerous to the stability of the State. The following are the departments of the Central Administration: '*. Kutipannya tergambar seperti ini:

of Corea, Anam, Burmah, Siam, and Nepal. On various parts of the frontier and scattered over all the southern and western provinces are, furthermore, numerous tribes of aborigines, either partly or wholly uncivilized, for whose government special regulations are in force. Regulations, indeed, of the most minute and comprehensive character, are on record for the guidance of every conceivable act of administration ; and the principal function of the Central Government consists in watching over the execution of this system of rules. The bestowal of the higher appointments of the civil and military services, and the distribution of the superior literary degrees as rewards for proficiency in the studies upon which the entire polity of the Empire is based, comprise the remainder of the attributes reserved to the government established at Peking. The Central Government may be said to criticize rather than to control the action of the twenty-one provincial administrations, wielding, however, at all times, the power of immediate removal from his post of any official whose conduct may be found irregular or considered dangerous to the stability of the State. The following are the departments of the Central Administration :—

136.—The Chün Chi Ch'u 軍機處.—Council of State, or Grand Council (literally, Place of Plans for the Army). This

Sumber: Mayers, William Frederick. 1896: 12. The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair. Shanghai: Kelly and Walsh, Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

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European system of Royal or national Orders mengadopsi *Chinese Administration.* Pada buku karya Mayers, William Frederick (1896: 12) berjudul '*The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair'* (Shanghai: Kelly and Walsh, Limited) tercetak '*Although rewards for distinguished service, or marks of Imperial favour, the conception of which resembles in some degree that of the European system of Royal or national Orders and medals of distinction, are to be found in China, nothing in the shape of an actual Order of Merit, approximating to the European type, has been adopted by the Chinese Government'.*

457.—SHANG KUNG 賞功.—DISTINCTIONS FOR MERIT.

Although rewards for distinguished service, or marks of Imperial favour, the conception of which resembles in some degree that of the European system of Royal or national Orders and medals of distinction, are to be found in China, nothing in the shape of an actual Order of Merit, approximating to the European type, has been adopted by the Chinese Government. In Japan, on the contrary, as is well known, an Order of the European kind was instituted in 1875, with the designation *Hsün Têng Shang P'ai* 勳等賞牌 for its various classes of decoration. The term *chün p'ai* 軍牌 was at the same time selected to denote the medals which it was decreed should be awarded for military services. Isolated distinctions have indeed been conferred in China on foreigners of various nationalities, principally for services rendered in the command of drilled troops during the Taiping rebellion, and subsequently in the collection of the Customs' revenue, which are known, with reference to the European term "star," by the designation *pao hsing* 寶星; but as these are bestowed, for the most part, by provincial authorities, and without the sanction of any established rule or recognized statutes, such as are required to constitute what is commonly known as an "Order," the badges thus conferred can scarcely be regarded as having a real value as authentic marks of distinction. The Imperial decorations for merit established under the reigning dynasty are as follows :—

Sumber: Mayers, William Frederick. 1896: 71. The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair. Shanghai: Kelly and Walsh, Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

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Chinese Bureaucracy

Birokrasi China Kuno merupakan '... *the ranks of Chinese official administration are organized*'. Pada buku karya Mayers, William Frederick (1896: 123) berjudul '*The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair'* (Shanghai: Kelly and Walsh, Limited) tercetak '*The present work would be incomplete without some general outline, at least, of the system under which the ranks of the Chinese official administration are organized. The bureaucracy which forms the most active and important element in the national life of China is a subject, indeed, not easily to be dealt with in a narrow compass'*. Kutipannya tergambar seperti ini:

SECTION I.—CHINESE OFFICIAL RANKS.

THE present work would be incomplete without some general outline, at least, of the system under which the ranks of the Chinese official administration are organized. The bureaucracy which forms the most active and important element in the national life of China is a subject, indeed, not easily to be dealt with in a narrow compass. As the outcome of the history of two thousand years, and inspired with traditions descending from periods of fabulous antiquity, the huge fabric which is revered as the depository of all honour and all authority may well be thought capable of defying attempts at analysis on any but the broadest scale. Such particulars, at the same time, as are needed for a general comprehension of the methods pursued in the existing organization, the results of which it has been sought to elucidate in the preceding sections of this work, may nevertheless be briefly assembled. The Chinese official hierarchy, as it is found established in the *Ta Ts'ing Huei Tien*, or Collected Institutes of the Empire, is in all its leading features a continuation of the system gradually established under the Ming dynasty, whose tenure of power was marked, in the fifteenth and sixteenth centuries of our era, by the introduction of the principle of universal competition for literary degrees as the means of obtaining access to rank and office, and by the mapping out of the territories of the Empire in the divisions which still, for the most part, subsist. In Part IX of the present work the method by which advancement is obtained in the various degrees at the official Examinations is categorically set forth; and it now remains to elucidate, with the help of the details afforded by the Institutes, the system of classification ordained for the ranks of the public service.

Sumber: Mayers, William Frederick. 1896: 123. The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair. Shanghai: Kelly and Walsh, Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Creel, Herrlee Glessner (1937) berjudul '*The Birth of China A Study of the Formative Period of Chinese Civilization'* (New York: Frederick Ungar Publishing Co)
Herrlee Glessner Creel, *Professor of Early Chinese Literature and Institutions, The University of Chicago*
bukti kebudayaan China mudah rusak, pada buku karya Creel, Herrlee Glessner (1937: 21) tercetak '*Unfortunately most of the things used by these people, which might have come down to us as evidence of their culture was very perishable'.*
Their great temple were built with pillars of wood

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an efficiency of administration
'*A psychological force which is perhaps even stronger tha religion is the hope of gain*' (Creel, Herrlee Glessner, 1937: 134). '*The ruler may hold this out to his subjects in any of a number of forms. The most difficult but perhaps the soundest (paling masuk akal, sehat) from which such gain may take is that peaceful, well-regulated government, guaranteeing protection both from invasion and **civil** war, allowing the individual, in return for the payment of moderate taxes, to pursue his livelihood insecurity*'. *This was what the Roman Empire gave, for centuries, and its success is unparalleled, unles by China. But we can hardly suppose that the Sangs had this to offer. It would have required an efficiency of administration, both civil and military, which we cannot suppose that they possessed.*

method of administration is by means of money
Still another method of administration is by means of money, sent out by the central government as pay to officials and soldiers stationed in rmote districts.

135
government is "farmed out".
Fundamentally this is a system by which government is, as it were, "farmed out". The king gives a specific piece of territory to a noble, as his fief.

feudal system

The Chous, who conquered the Shangs, ... starting from simple beginnings

137
.... Confucius as having said, 'In the heaven there are not two suns; on earth there are not two kings' ....

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Two Chinese words meaning 'minister' of 'official' are especially important in this connetion. One of them, originally meaning 'eye' then 'captive', 'servant' 'retainer' and 'ministerr' in turn, we have already discusssed. The other is pronounced Shih. Several words, slightly differing in form, have descended from the one ancestral root, their meanings include 'use, employ, order, send, business, affairs, clerk, recorder, diviner, historian, history. This word appears on the oracle bones as verb meaning 'to send' as a noun meaning 'affairs' and as an official title.

oracle bones

Oracle bones (Chinese: 甲骨; pinyin: *jiǎgǔ*) are pieces of ox scapula or turtle plastron, which were used for pyromancy – a form of divination – in ancient China, mainly during the late Shang dynasty. (https://en.wikipedia.org)

scapula tulang rusuk

The plastron is the nearly flat part of the shell structure of a turtle,

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Pada buku karya Creel, Herrlee Glessner (1936: 22) berjudul '*The Birth of China A Survey of the Formative Period of Chinese Civilization.* London: Jonathan Cape Ltd tercetak '*Shang Oracle Bones*' seperti ini:
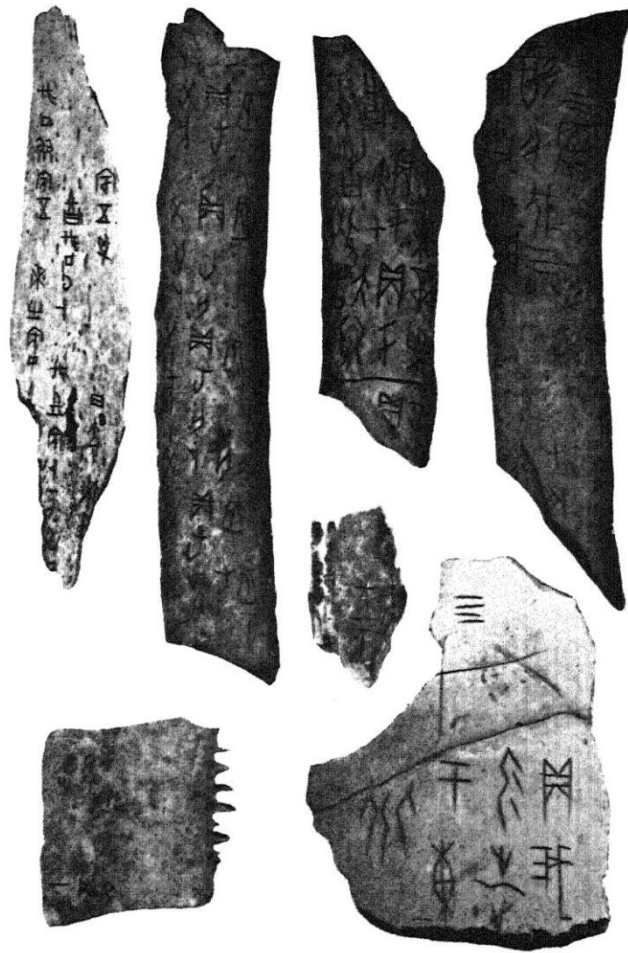
PLATE I

SHANG ORACLE BONES

SPECIMENS OF THE MANY THOUSANDS OF PIECES OF INSCRIBED BONE AND TORTOISE-SHELL FROM WHICH IT IS POSSIBLE TO RECONSTRUCT MUCH OF THE LIFE OF SHANG TIMES. IN THE UPPER LEFT-HAND CORNER IS AN EXAMPLE OF THE FORGED INSCRIPTIONS CARVED FOR SALE TO THE UNWARY. THE INSCRIPTION IN THE UPPER RIGHT-HAND CORNER APPARENTLY HAD TO DO WITH THE SACRIFICE OF THREE HUMAN BEINGS. THE PIECE IN THE LOWER RIGHT-HAND CORNER IS IN THE COLLECTION OF DR. CYRUS PEAKE, THE REMAINDER IN A PRIVATE COLLECTION

Sumber: Creel, Herrlee Glessner. 1936: 22. The Birth of China A Survey of the Formative Period of Chinese Civilization. London: Jonathan Cape Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Mayers, William Frederick (1896: 2 & 3) berjudul ‘*The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair’* (Shanghai: Kelly and Walsh, Limited) tercetak ‘*To drop the curtain and administer the government*’ *as the minister’s eyes may not gaze on the Empress’s face’..*

2 PART I.—THE IMPERIAL COURT.

9.—TA YING 答應 and CH'ANG TSAI 常在.—Female attendants of the Emperor. These may be elevated to the rank of *Kuei Jên*. Beneath them, again, is a class of Serving Women, or *Shih Nü* 使女, who are recruited by annual drafts from the families appertaining to the Imperial Household, and who serve for a term of years within the Palace.

10.—T'AI TZŬ 太子.—The Heir Apparent. Also called *Shih Tzŭ* 世子. Lit. des. *Huang ch'u* 皇儲, and *Tung Kung* 東宮.

11.—HUANG TZŬ 皇子.—Princes. The sons of an Emperor of the present dynasty are known simply as *A'-ko* 阿哥, a rendering of the Manchu word *agêh*, unless when designated by the princely rank bestowed upon them, such as *Ch'in Wang* 親王, or lower dignities. Lit. des. *Wang Ti* 王邸, or simply *Ti*.

12.—KUNG CHU 公主.—Princess Imperial; daughter of an Emperor.—See the following ranks :—

13.—KU-LUN KUNG-CHU 固倫公主.—Princess Imperial of the first rank (daughter of an Empress consort). From the Manchu word *gurun*,=the Chinese *Kuo* or State.

14.—HO-SHÊ KUNG-CHU 和碩公主.—Princess Imperial of the second rank (daughter of an inferior consort).

15.—Ê FU 額駙.—Husband of an Imperial Princess. In former dynasties this position was designated *Fu Ma* 駙馬.

16.—FU CHIN 福晉.—Princess Consort (wife of an Imperial Prince).

17.—I CHÊNG WANG 議政王.—Prince Regent.

This phrase was used to designate the position of Prince *Kung* while Regent of the Empire in 1862, during the minority of the Emperor *T'ung Chih*. When, however, the usurper *Wang Mang* 王莽 held the same relation towards the Emperor *Ju Tzŭ Ying* 孺子嬰 of the Han Dynasty in B.C. 6, the term he employed was *Chü Shê* 居攝.

18.—HUANG T'AI HOU LIN CH'AO 皇太后臨朝.—Empress Dowager Regent. Her Majesty's act of regency is also described by the expression *Ch'ui Lien T'ing Chêng* 垂簾聽政, literally, "To drop the curtain and administer the Government," as the

PART I.—THE IMPERIAL COURT. 3

ministers' eyes may not gaze on the Empress's face. Used during the minority of the present Emperor, *Kuang Hsü*.

Hereditary Imperial Nobility :—

The titles conferred on members of the Imperial House of the present dynasty are of twelve degrees. Imperial princes usually receive patents of the first or second order on arriving at manhood, and their sons are invested with the third degree of rank. Titles of the same degrees are also conferred on the princes and chieftains of the various Mongol tribes. They are as follows :—

19.—i. HO-SHÊ CH'IN WANG 和碩親王.—Prince of the first order.

20.—ii. TO-LO CHÜN WANG 多羅郡王.—Prince of the second order.

21.—iii. TO-LO PEI-LÊ 多羅貝勒.—*Bei-lê*, or Prince of the third order.

22.—iv. KU-SHAN[1] PEI-TZŬ 固山貝子.—*Bei-tzŭ*, or Prince of the fourth order.

23.—v. FÊNG-ÊN CHÊN KUO KUNG 奉恩鎭國公.—Imperial Duke of the first degree.

24.—vi. FÊNG-ÊN FU KUO KUNG 奉恩輔國公.—Imperial Duke of the second degree.

25.—vii. PU-JU PA FÊN[2] CHÊN KUO KUNG 不入八分鎭國公.—Imperial Duke of the third degree.

26.—viii. PU-JU PA FÊN FU KUO KUNG.—不入八分輔國公.—Imperial Duke of the fourth degree.

27.—ix. CHÊN KUO CHIANG CHÜN 鎭國將軍.—Noble of the Imperial lineage, ninth in line of descent.

[1] *Ku-shan* represents the Manchu word *Ku-sai*, signifying Banner.

[2] The 八分 *Pa Fên* or Eight privileged ranks date from the reign T'ien Ming (A.D. 1616-1626), when, before the entry of the Manchus into China, eight princes, entitled Ho-shê Bei-lê, were formed into a military Council of State. They were invested with an equality of rank and dignity, and they hence received the designation of the "eight partitioners." When the order of precedence among the princes and nobility of the Imperial lineage came subsequently to be determined, a line of the distinction was drawn at the sixth rank as above mentioned. The princes and nobles who were classed as on a par with the "eight partitioners" had the right of access to the Court on all State occasions. Those below the sixth rank simply took rank in their respective banners. [See *Ta Ch'ing Hui Tien*.]

Sumber: Mayers, William Frederick. 1896: 2 & 3. The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair. Shanghai: Kelly and Walsh, Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

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Webster's Revised Unabridged Dictionary

To drop the curtain to end the tale, or close the performance.

The curtain dropped suddenly in response to the manager's frantic signal and his performance went so badly that they had to drop the curtain on him

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Chinese administration berawal dari *Shang Administration.* Pada buku karya Mayers, William Frederick (1896: 1) berjudul '*The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair'* (Shanghai: Kelly and Walsh, Limited) tercetak:

MANUAL
OF
CHINESE TITLES.

PART I.—THE IMPERIAL COURT.

1.—HUANG TI 皇帝.—The Emperor. Ordinary designation, *Huang Shang* 皇上; *Shang* 上. Title of respect, *T'ien Tzŭ* 天子 the Son of Heaven. Popular appellation, *Tang-chin Fo Yeh* 當今佛爺, the Buddha of the present day. Also *Chu Tzŭ* 主子, *i.e.* the Master, or Lord; and, in adulatory addresses, *Wan Sui Yeh* 萬歲爺, *i.e.* Lord of Ten Thousand Years.

2.—HUANG HOU 皇后.—The Empress. Lit. designation, *Chung Kung* 中宮; or when two consorts of equal rank exist together, as in recent times, *Tung Kung* 東宮 and *Hsi Kung* 西宮, with reference to the "Eastern" and "Western" divisions of the Palace allotted to their use. Title of respect, *Kuo Mu* 國母, or "Mother of the State."

3.—HUANG T'AI HOU 皇太后.—An Empress Dowager.

4.—HUANG KUEI FEI 皇貴妃.—Secondary Consort (Concubine) of the first rank. Concubines of the second rank may from time to time be advanced, by imperial favour, to this grade, and from the first rank a secondary consort may be raised to the degree of *Huang Hou* or Empress Consort.

5.—KUEI FEI 貴妃.—Concubine of the second rank.

6.—FEI 妃.—Concubine of the third rank.

7.—P'IN 嬪.—Concubine of the fourth rank. (This character is also read *pin*.)

8.—KUEI JÊN 貴人.—Concubine of the fifth rank.

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Sumber: Mayers, William Frederick. 1896: 1. The Chinese Government. A Manual of Chinese Titles, Categorically Arranged and Explained with an Appendix.Third Edition. Revised by G.M.H. Playfair. Shanghai: Kelly and Walsh, Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

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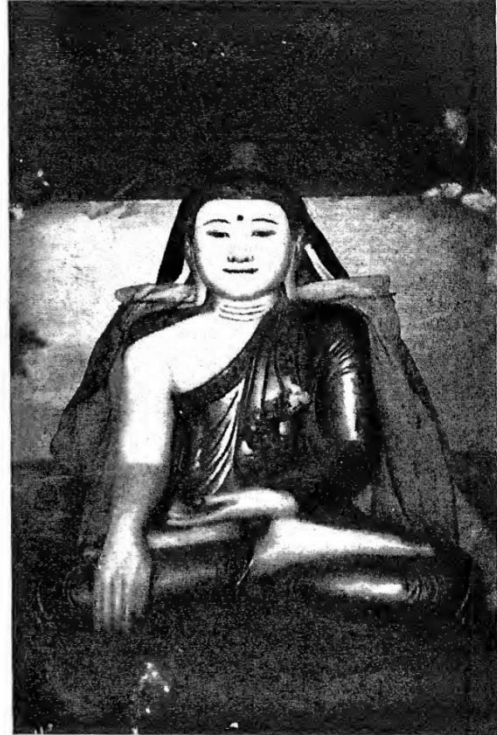
Pada buku karya Ling, Princess Der (1930: 290-291) berjudul '*Old Buddha'* (New Yor: Dodd, Mead & Company) tercetak:

PART OF THE FAMOUS COLONNADE, SUMMER PALACE, PEKING, A FAVORITE STROLLING PLACE OF THE OLD BUDDHA

LIFE SIZE WHITE JADE BUDDHA, OLD BUDDHA'S FAVORITE, AT THE WINTER PALACE, PEKING

Sumber: Ling, Princess Der. 1930: 290-291. Old Buddha. New Yor: Dodd, Mead & Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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Ptolemaic Administration

Merunut pemikiran tulisan Lepawsky, *Professor of Public Administration, University of Alabama,* terbaca bahwa '*The Ptolemies*' telah merancang '*System of personal and bureaucratic administration of Egypt*'. Pada bukunya Lepawsky, Albert (1949: 80 & 81) berjudul '*Administration the Art and Science of Organization and Management'* (Calcutta: Oxford & IBH Publishing Co) tercetak '*Following the "planned economy" of Ptolemaic Egypt, we find continued evidence of systematic, though not always efficient public administration*'. Kutipannya berupa gambar seperti ini:

> '*For the first time, the administrative system of Egypt was, so to saw codified, it was coordinated and set into motion like a well organized machine constructed for a special, well defined and well understood purpose. No discretion ont eh part of the states agents was tolerated, although the whole system was based on force and compulsion, very often on brute force. After investigating condition in Philadelphia as reflected in the correspondence of Zenon, we have before us just one piece of the work of Ptolemaic machinery. Every phase of activity in Philadelphia is regulated by the administrative machine of the Ptolemies agriculture, cattle breeding industry and commerce are conducted on lines identical with those on which life in Egypt as a whole was run Philadelphia was Egypt in miniature.*
> *Following the 'planned economy' of Ptolemaic Egypt, we find continued evidence of systematic, though not always efficient public administration. This becomes more apparent as we study Egypt's neighbors in the Near East, such as the Byzantine Empire (A.D. 330 – 1453), or the Ottoman Empire, especially under Suleiman the Magnificent (A.D. 1520 – 1566)* '.

aPada buku karya Bevan, Edwyn (1927) berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) tercetak gambar Ptolemy seperti ini:

FIG. I.—BUST OF PTOLEMY II., USUALLY GIVEN AS PTOLEMY I.

Sumber: Bevan, Edwyn. 1927. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd..Gambar disajikan oleh Levri Ardiansyah (2017).

Ptolemaic System of Government tercetak pada buku karya Mitteis, L & Wilken, U (1912) berjudul '*Grunzuge undChrestomathie der Papyruskunde. Vol.1'* (Leipzig, Berlin: Druck und Verlag von B.G. Teubner). Sedangkan uraian tentang *law and justice* tercetak pada buku volum kedua. Tulisan Mitteis, L & Wilken, U (1912) ini berdasarkan *papyrological studies* yang mereka lakukan terhadap *Ptolemaic papyri,* diantaranya bersumber pada buku berjudul '*Urkunde der Ptolomaerzeit*' dan buku karya Strack, Max L (1897) berjudul '*Die Dynatie der Ptolemaer'* (Berlin: Verlag von Wilhelm Hertz) yang tercetak padanya '*Ptolemaic chronology*'. Ihwal ini dapat terbaca pada buku karya Bevan, Edwyn (1927:ix) berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) yang tercetak seperti ini:

PREFACE ix

have as their fundamental text-book the *Grundzüge und Chrestomathie* of Wilcken and Mitteis—the first volume, by Wilcken, giving a general exposition of papyrology and an account of the Ptolemaic system of government, the second volume by Mitteis dealing with law and justice. Ulrich Wilcken, one of the great scholars whom Germany has given the world in this generation, speaks with an authority which few other men possess, in anything which has to be with papyrological studies. The edition of the Ptolemaic papyri, chronologically arranged, which he is now bringing out, volume by volume (*Urkunde der Ptolemäerzeit*), embodies the results of a lifetime devoted to this special field. For questions of chronology the book by Max. L. Strack, *Die Dynastie der Ptolemäer* (1897), puts the data together so far as they were known twenty-nine years ago, and reference to this book is still essential in any further discussions of Ptolemaic chronology. Strack was one of the European scholars killed in the Great War. All the more important

Sumber: Bevan, Edwyn. 1927: ix. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd..Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Petrie, Sir Flinders (1923) berjudul '*A History of Egypt from the Earliest Kings to the XVIth Dynasty. Eleventh Edition, Revised'* (London: Methuen & Co. Ltd) tercetak uraian tentang '*Organization of government and society in Pharaonic Egypt*' serta penjelasan rinci tentang '*Ptolemaic system corresponded with the older Pharaonic system, ... of despotic government, independently creating similar forms*'. Bevan, Edwyn (1927:xi) pada bukunya berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) juga mengungkap karya Petrie ini yang tercetak:

It only remains for me to express my obligation to those who have helped me, and, in the first place, to the general editor of this *History of Egypt*, Sir Flinders Petrie, for the fullness with which he has given me light on points regarding which I consulted him, and the care with which he read through a rather untidy MS. The suggestions and criticisms which he made will be traceable in various footnotes. Sir Flinders Petrie has given, in writings to which reference will be made, very valuable accounts of the organization of government and society in Pharaonic Egypt. To examine in detail how far the Ptolemaic system corresponded with the older Pharaonic system, and again, where correspondences are evident, to determine how far these were due to borrowing, and how far due to the necessities of life in Egypt, or of despotic government, independently creating similar forms, would be an inquiry outside the range of this small volume. It will be enough here to refer those who desire to pursue it to Sir Flinders Petrie's authoritative exposition of the customs and institutions of Egypt in Pharaonic days. The story of Egypt through the thousands of years during which it carried on its distinctive culture under native kings, and of its later struggles for independence, ultimately vain, against the power of Persia, Sir Flinders Petrie has told in the three previous volumes of this series.

Sumber: Bevan, Edwyn. 1927: xi. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd..Gambar disajikan oleh Levri Ardiansyah (2017).

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The System of Ptolemaic Government

Ptolemaic memimpin *Egypt* sebagai raja yang kala itu kerajaannya merupakan provinsi dalam kendali *Roman Empire.* Satu sisi lainnya, provinsi ini berada dalam wilayah *Pharaonic Egypt.* Kondisi ini disadari Ptolemaic bahwa ia memimpin masyarakat yang merasa telah kehilangan kebebasan, yakni mereka tidak lagi dikendalikan secara bebas (*governed despotically*) oleh penguasa yang berasal dari ras mereka sendiri. Pada konteks ini, *despotic government* merupakan tirani yang dikehendaki rakyat berupa pemerintahan yang dikuasai oleh satu orang dengan kekuasaan yang absolut. Merunut pemikiran tulisan Aristotle (1888: 94) berjudul '*A Treatise on Government. Translated from the Greek of Aristotle by William Ellis with an Introduction by Henry Morley'* (London: George Routledge and Sons) terbaca tentang *despotic power* yang berada pada satu orang dengan kekuasaan absolut merupakan suatu tirani yang umumnya terdapat pada *monarchy.* Kutipan tulisan Aristotle tersaji seperti ini: '*A tyrany then is, as has been said, a monarchy, where one person has an absolute and despotic power over the whole community and every member therein*'. Pada buku karya Bevan, Edwyn (1927: 132) berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) tercetak:

CHAPTER V

THE SYSTEM OF GOVERNMENT

§ 1. The Bureaucracy

The episode of Ptolemaic rule in Egypt forms a bridge between Pharaonic Egypt and Egypt as a Province of the Roman Empire. In so far as Egypt is governed by *foreigners* of Hellenistic culture, Ptolemaic rule is the first chapter of a new epoch, an epoch in which the old Egyptian people has finally lost its freedom—if freedom means that men are governed despotically by rulers of their own race; in so far, on the other hand, as Egypt is governed by rulers who reside in the country—in so far as the kingdom of Egypt is free, in the sense that it is independent of any *outside* power—Ptolemaic rule is the last chapter of the history of Egypt as a sovereign state.

Sumber: Bevan, Edwyn. 1927: 132. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Raja Ptolemy II juga menyadari bahwa ia menanggung beban permasalahan kelaparan, perdagangan yang dikuasai pihak asing, maupun industri yang dimonopoli oleh pengusaha tertentu. Karena ini, Ptolemy II merasa bertanggungjawab agar seluruh lahan tanah disepanjang Sungai Nil menjadi tanah milik yang menguntungkan (*profitably administered estate*). *The*

Ptolemaic king lalu memutuskan ia merupakan pemilik tanah (*landowner*) terluas sekaligus juga sebagai petani. Seluruh pegawai kerajaan merupakan *abdi dalem* yang setia melayani (*his personal servants*), para tentara merupakan alat perpanjangan kehendak Raja (*the army an instrument of his will*) dan semua staf serta pegawai kerajaan harus memiliki karakter militer (*purely military character*). Dengan *Ptolemaic system,* seluruh tanah milik raja harus didesain agar menguntungkan (*the king's estate as lucrative as possible*). Untuk ini, Ptolemy memerlukan orang yang mengerti finansial dan juga sisi finansialnya menonjol. Orang ini ditempatkan langsung berada dibawah raja sekaligus merupakan '*The head of the whole government*'. Orang ini diberi sapaan sebagai '*Dioiketes*'. Pada masa kini, *dioiketes* merupakan perdana menteri. Dalam bahasa *Greek, dioiketes* merupakan '*the manager of the private estate*'. Bevan, Edwyn (1927: 133) menuliskan ini pada bukunya berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) yang tercetak:

The Ptolemaic king has to be thought of as a landowner and farmer on a huge scale, one whose estate was the whole land of Egypt. All the officials were his personal servants, the army an instrument of his will, raised from the men who held plots of land assigned them out of his territory on the condition of rendering him military service, or recruited as mercenaries, from Greece or the Balkans or Asia, and attached to him personally as their employer. Under the early Ptolemies "there was no sharp distinction between the military and the civil career, and the staff of the king bore an almost purely military character."[1]

Since the supreme end of the Ptolemaic system was to make the king's estate as lucrative as possible, one understands that the financial side of it should be prominent. The man who, under the king, was at the head of the whole government—who had, that is to say, somewhat the same position as that of a *vizir* in a Mohammedan monarchy—was the man whose title denoted him the *manager* of the economic affairs of the kingdom. He was called *dioikētēs*—the same Greek word which was used for the manager of a private estate.

Sumber: Bevan, Edwyn. 1927: 133. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Ptolemy mengangkat Apollonius yang berasal dari Greek sebagai *dioiketes.* Apollonius diberi kewenangan untuk menentukan: (1) '*his own general manager*' yang diberi sapaan sebagai '*oikonomos*'; (2) *his secretary*; (3) *stolarches* (*commander of the fleet*) yang memimpin armada kapal dan konvoi pasukan; (4) *edeatros* (*master of table*) dan (5) *great multitude of slaves.* Apollonius diberi tugas mengawasi dan mengendalikan yang dilaksanakannya dengan cara *blusukan* bersama *oikonomos* keliling seantero negeri '*to supervise the working of the new administrative system*'. Kala itu, Apollonius dibiarkan

oleh Ptolemy '*to combine double role*' yakni sebagai penguasa (*the king's chief agent*) dan sekaligus pengusaha (*a trader, corn-grower, live-stock farmer, industrialist on a large scale*). Apollonius memiliki tanah yang luas hasil pemberian raja berupa hadiah (*in gift*). Pada buku karya Bevan, Edwyn (1927: 133 & 134) berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) tercetak:

The personality of one conspicuous holder of the office of *dioiketes* under the second Ptolemy has been partially recovered from the " Zeno papyri." His name was Apollonius, and he was, of course, a Greek, or possibly a Hellenized Carian, like his agent Zeno. He was appointed to his high office about the year 268–267 B.C., and held it to the end of the reign. There are indications that he was abruptly dismissed and deprived of his fortune on the accession of Ptolemy III.[2] The papyri show Apollonius keeping an almost royal state

[1] Rostovtzeff, *Large Estate*, p. 20.
[2] His *dorea* is shown by Zeno, 61 (5th–6th year of Ptolemy III.), to have been confiscated.

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with a small court or " house " (οἰκία) attached to him like the king's in miniature. He has his own general manager (*oikonomos*), who stands to him in somewhat the same relation as he himself does to the king, his treasurer and manager of the household (ὁ ἐπὶ τῆς οἰκίας), his secretary and *stolarches* (commander of the fleet), his *edeatros* (master of the table), and a great multitude of slaves. He travels about the country with his *oikonomos*, Zeno, to supervise the working of the new administrative system. But the odd thing is that Apollonius combines a double rôle. While he is the king's chief agent for his estate of Egypt, he is also himself, on his own account, a trader, corn-grower, live-stock farmer, industrialist on a large scale. His commercial business ramifies over Palestine and Transjordania, and the coasts of Asia Minor. He had his own merchant-fleets for the Nile and for the sea. His agents are busy in Ake (Ptolemais), Tyre, Sidon, Joppa, Gaza, the Lebanon, Rabatammana (Rabbath-Ammon, mod. Amman), Caunus, Miletus, Halicarnassus. He traffics among other

Sumber: Bevan, Edwyn. 1927: 133 & 134. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

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Right to Serve

Pada buku karya Bevan, Edwyn (1927: 137) berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) tercetak '*His name was Apollonius, and as the son of a katoikos he had a right to serve in the epigonoi*' yang kutipannya seperti ini:

The immense complexity of the bureaucratic machine under the Ptolemies and the mode of its working is vividly illustrated by the papyrus which tells us how a young Macedonian under Ptolemy Philometor obtained the appointment he desired to a troop of *epigonoi* in Memphis.[1] His name was Apollonius, and as the son of a *katoikos* he had a right to serve in the *epigonoi*. The first step is for his elder brother, Ptolemy, who is a recluse in the Memphian Serapeum, to draw up a petition to king Ptolemy when he is visiting the Serapeum on October 3, 158 B.C. Apollonius throws in the petition through the audience window. The king writes on the petition, "To be done, but report how much it will come to" (*i.e.* how much the new *epigonos* will cost the State). The petition is given back, with the royal seal on it, to Apollonius, and one feature of the Ptolemaic system which may appear odd to us to-day now becomes prominent. The work of carrying communications from one official to another, where the interests of some one appealing to the government are concerned, is performed by the interested party, not by any official agency.

Sumber: Bevan, Edwyn. 1927: 137. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Territorial Divisions

Pada buku karya Bevan, Edwyn (1927: 139) berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) tercetak '*As early as the time of Herodotus the Greeks bad been quite aware of these territorial divisions in Egypt. They translated the Egyptian word for them (hesepu) by a Greek word," nomos", connoting distribution*' yang kutipannya terbaca seperti ini:

§ 2. THE NOMES AND THEIR OFFICIALS

It has been shown in former volumes of this series how the different districts in the Delta and in the valley of the Nile, each with its own chief town and special deity, which had once, in the remote past, before they went to form together the realm of the Pharaohs, been independent settlements, retained under the Pharaohs their distinct existence. Upon this division of the kingdom into a number of clearly marked-out differing regions the systems of Pharaonic government had been based. As early as the time of Herodotus the Greeks had been quite aware of these territorial divisions in Egypt. They translated the Egyptian word for them (*hesepu*) by a Greek word, *nomos*, connoting distribution, and we use the Greek word to-day in the Anglicized form "nome." When the Ptolemies took over the country, their administration, too, had to be based upon the nomes, which were an existing fact.

The names and number of the nomes given us by Egyptian inscriptions and by Greek and Latin authors vary. Obviously there were differences of arrangement at different times; a town might at one time be subordinate to the capital of a nome, at another time count as a capital itself, with a nome

Sumber: Bevan, Edwyn. 1927: 139. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

The Department of the State

Pada buku karya Bevan, Edwyn (1927: 144 & 145) berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) terbaca penataan departemen pada kerajaan yang merupakan negara berdasarkan: (1) *the economic system of the Ptolemies*; (2) *the judicial and police arrangements;* (3) *the army and navy* dan (4) *the position of native prieshood.* Kutipannya terbaca berupa gambar ini:

§ 3. THE DEPARTMENTS OF STATE

The main object, as was said just now, of the Ptolemaic administration was to make Egypt a profitable estate for the king. It was an immense business enterprise. This alluvial land, fertile beyond other lands, must pour year after year into its master's storehouses the vast quantities of corn which it produced, over and above what was required for the feeding of its seven or eight millions of inhabitants, to be consumed as the king pleased, or turned by means of commerce into money for his treasury; others of its products must be converted by Greeks, Asiatics, or Egyptians, working in royal factories, into goods which the king might sell remuneratively to his subjects or to foreigners—its grapes into wine, its sesame and castor into oil, its flax into linen, its papyrus-reeds into paper; its river rolling down the products of inner Africa, of Sabæa and India to Alexandria, innumerable merchant ships dropping into the great Alexandrine harbour with wares from all coasts of the Mediterranean, must swell Ptolemy's riches with customs and harbour dues. The Greek king of Egypt was himself the greatest farmer, industrialist, merchant of them all. Of the working of this huge business we shall have to look at the main outlines, as they can be learnt from the papyri; but, of course, in order that it might be successfully carried on, the Ptolemaic king had to give the mass of his subjects, who worked for him, two things—inner and outer security. He had to provide for the repression of crime and settlement of disputes within the kingdom by a judicial and police system, and he had to provide for the defence of the kingdom against outside powers by a military and naval force at his own disposal. Finally he had to establish his relations with the representatives of a power which, whether the Greek king himself believed it to be based on reality or on delusion, he had to take account of as a power actually governing the thoughts and actions of men in Egypt—religion. He found a native priesthood established in the land, strong in its prescriptive privileges and in its influence upon the minds of men. We may then at this point survey (i) the economic system of the Ptolemies, (ii) the judicial and police arrangements, (iii) the army and navy, and (iv) the position of the native priesthood.

Sumber: Bevan, Edwyn. 1927: 144 & 145. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Manning, J.G. (2010: 105) berjudul '*The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC'* (Princenton, New Jersey: Princenton University Press) tercetak '*The flow of Ptolemy's petition through two bureaucracies*' seperti ini:
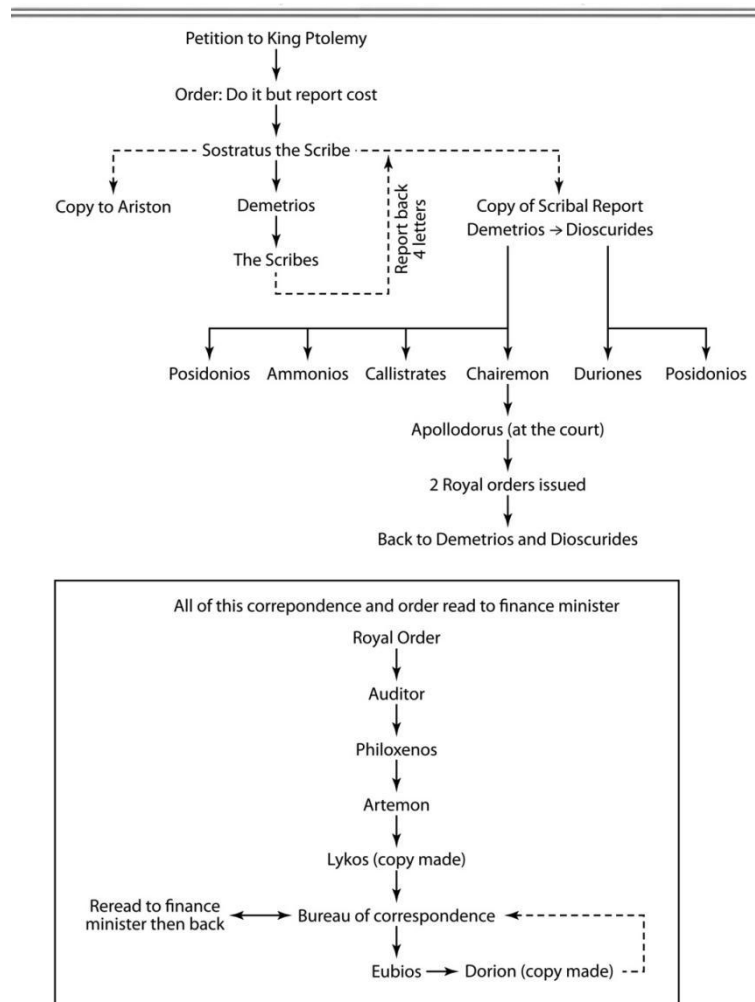
Figure 10. The flow of Ptolemy's petition through two bureaucracies. From *UPZ* I 14.

Sumber: Manning, J.G. 2010: 149. The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC. Princenton, New Jersey: Princenton University Press. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Manning, J.G. (2010: 154) berjudul '*The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC'* (Princenton, New Jersey: Princenton University Press) tercetak '*This is one of the most important Ptolemaic economic documents... as a systematic treatiseon revenue collection and central state planning*' seperti ini:
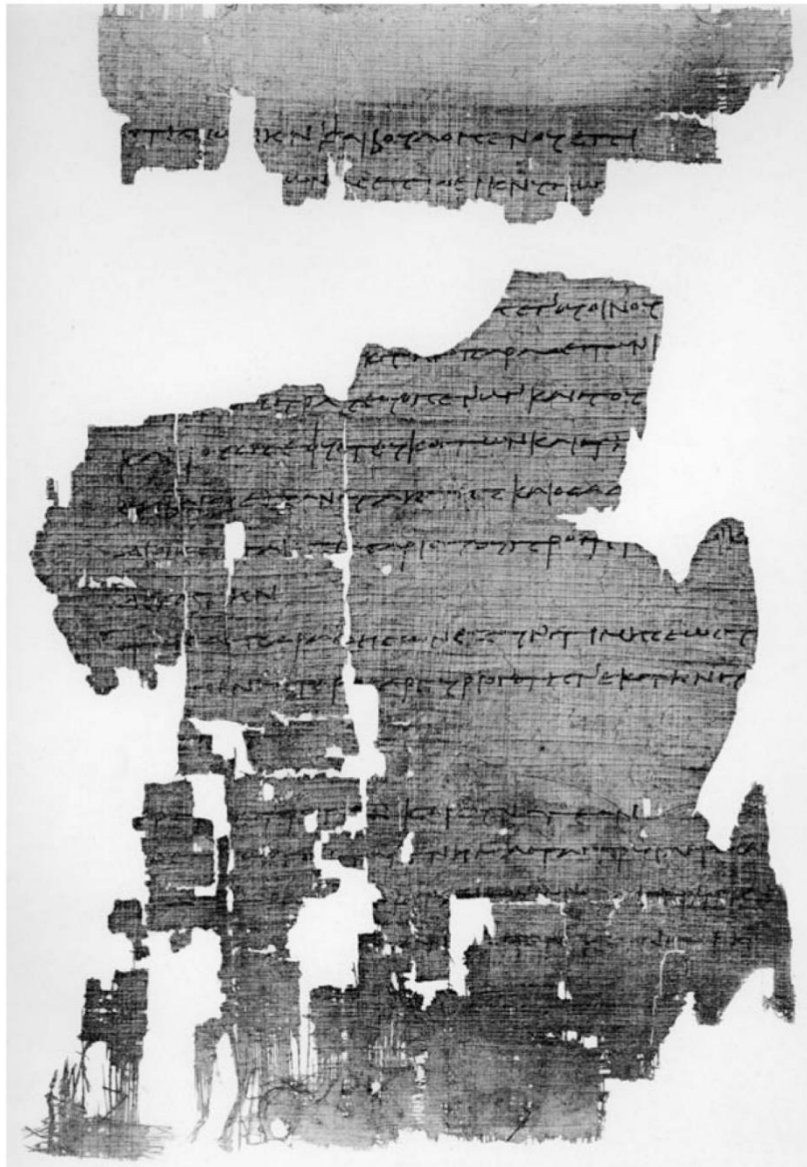
Figure 11. *pRev.*, 24, 4–25, 2. This is one of the most important Ptolemaic economic documents. It dates to 259 BC, and has been understood by some previous scholars as a systematic treatise on revenue collection and central state planning. Bingen's (1978a) work has shown that it is in fact a compilation of seven separate texts, and should be regarded as an ad hoc practical solution for economic administration that established the rules for a Greek fiscal institution, tax farming, and the contractual obligations and expectations of both tax farmers and tax payers.

Sumber: Manning, J.G. 2010: 154. The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC. Princenton, New Jersey: Princenton University Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Manning, J.G. (2010: 154) berjudul '*The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC'* (Princenton, New Jersey: Princenton University Press) tercetak '*A hierarchical model od the source of law in the Ptolemaic system. Adopted from LeFebvre*' seperti ini:
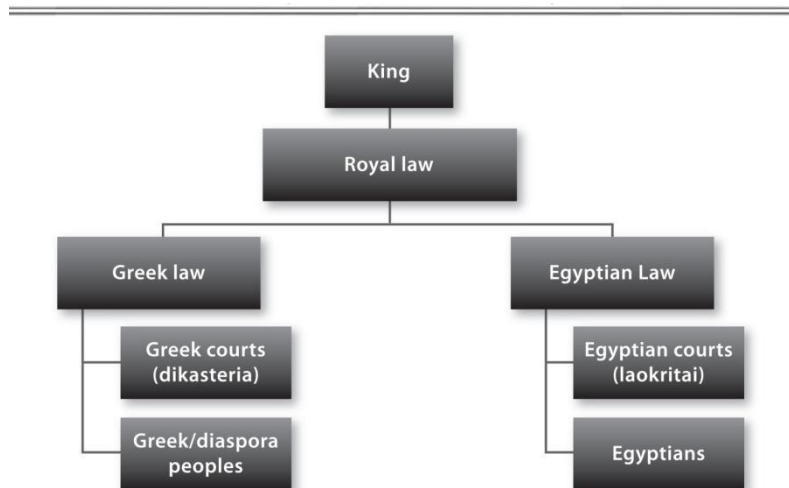
Figure 12. A hierarchical model of the sources of law in the Ptolemaic system. Adapted from LeFebvre (2006:159).

Sumber: Manning, J.G. 2010: 182. The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC. Princenton, New Jersey: Princenton University Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Manning, J.G. (2010: 184) berjudul '*The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC'* (Princenton, New Jersey: Princenton University Press) tercetak '*A "law and society" model od the evolution of Ptolemaic law'* seperti ini:

Law

scribal traditions

The King

Society [bureaucracy]
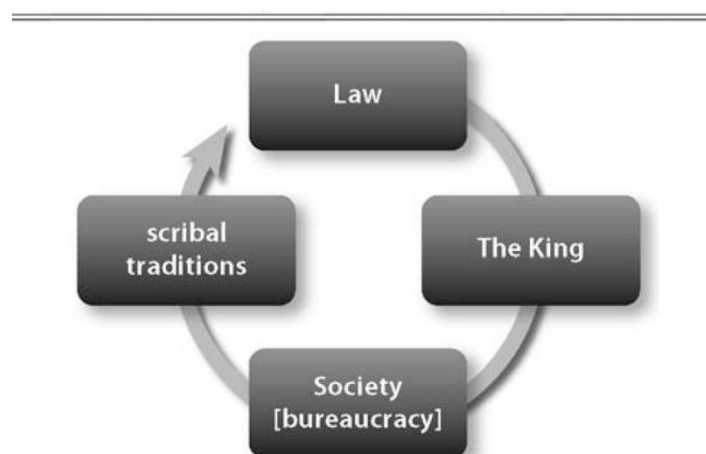
Figure 13. A "law and society" model of the evolution of Ptolemaic law. Cf. Swedberg (2003:191) discussing Friedman (1975).

Sumber: Manning, J.G. 2010: 184. The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC. Princenton, New Jersey: Princenton University Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Service

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Pada buku karya Bevan, Edwyn (1927: 178) berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) tercetak:

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liverance of oracles, and their title in Egyptian means simply "ministers of the god." The third grade was (still to use the Greek terminology) that of "robers" (*stolistai*), whose duties centred round the dressing and undressing and paint-
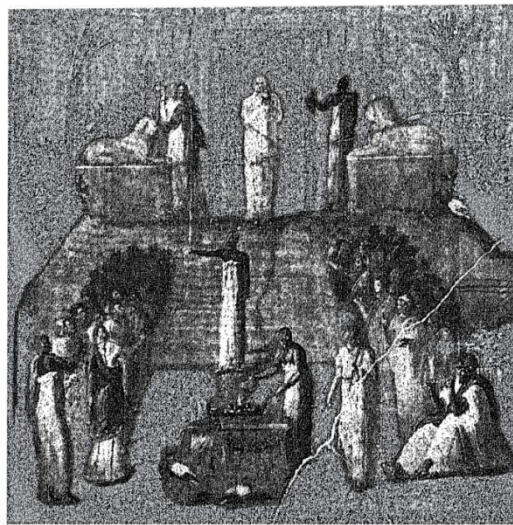
FIG. 27.—Service in front of an Egyptian Temple
From the Greek wall-painting from Pompeii in the Museo Nazionale, Naples

Sumber: Bevan, Edwyn. 1927: 178. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Bevan, Edwyn (1927: 190) berjudul '*A History of Egypt under the Ptolemaic Dynasty'* (London: Methuen & Co. Ltd) tercetak:

FIG. 30.—Syrian Coin of Ptolemy II. or III.
(silver, of Lebedus)

Sumber: Bevan, Edwyn. 1927: 190. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Bevan, Edwyn (1927: 343) berjudul ‘*A History of Egypt under the Ptolemaic Dynasty’* (London: Methuen & Co. Ltd) tercetak:
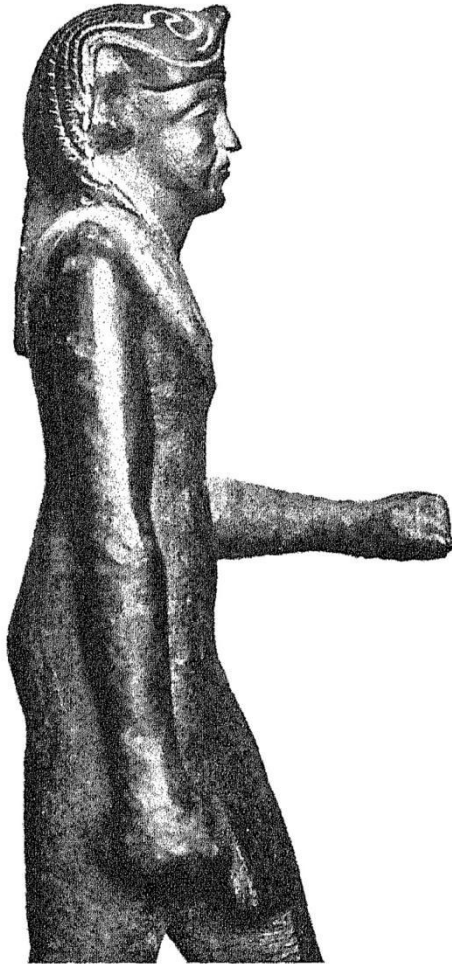
FIG. 59.—PHARAONIC FIGURE REPRESENTING ONE OF THE LATER PTOLEMIES
From the bronze figure in the Gorringe collection

Sumber: Bevan, Edwyn. 1927: 343. A History of Egypt under the Ptolemaic Dynasty. London: Methuen & Co. Ltd..Gambar disajikan oleh Levri Ardiansyah (2017).

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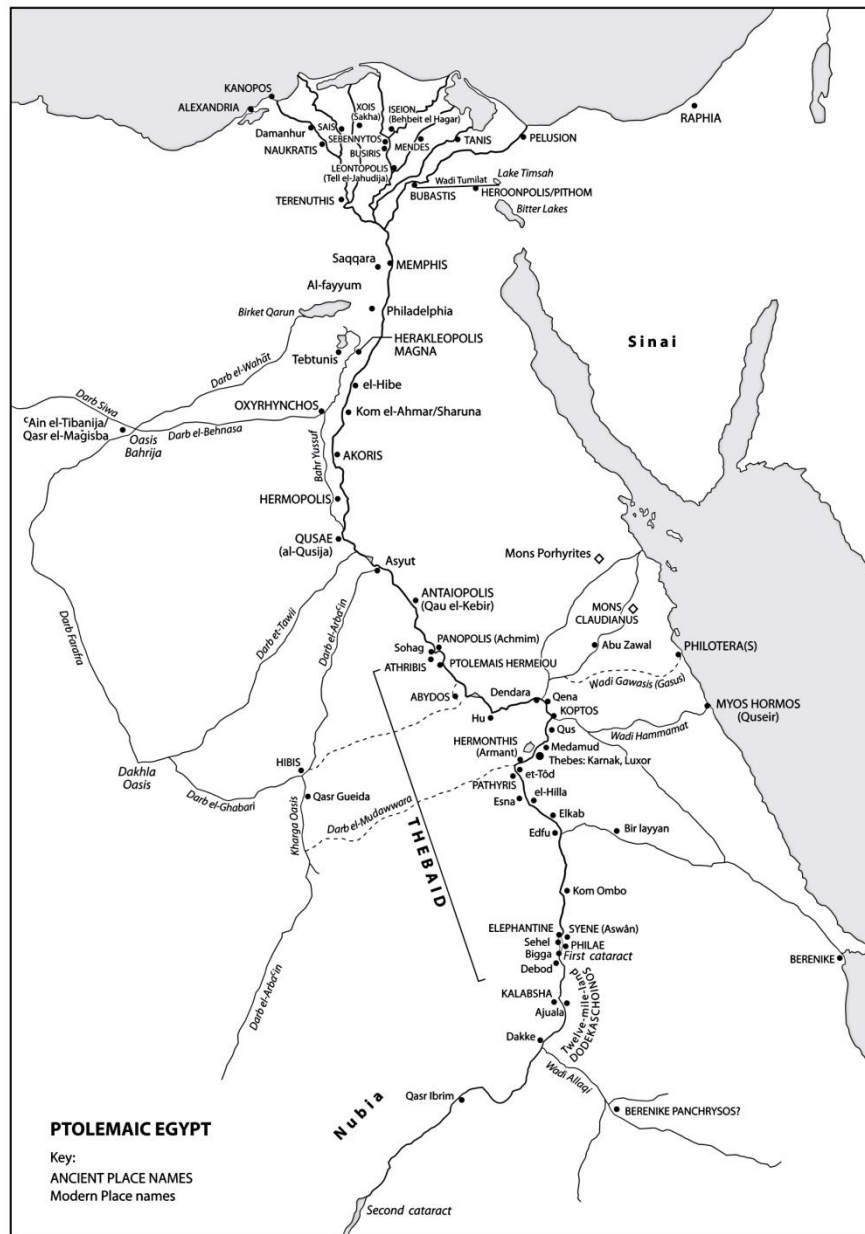
Pada buku karya Manning, J.G. (2010) berjudul '*The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC'* (Princenton, New Jersey: Princenton University Press) tercetak peta lokasi Philadelphia pada Ptolemaic Egypt seperti ini:

Sumber: Manning, J.G. 2010. The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC. Princenton, New Jersey: Princenton University Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Ptolemy; Pirckheimer, Willibald; Servetus, Michael; & Durer, Albrecht (1541: 226) berjudul '*Clavdii Ptolemaei Alexandrini Geographicae Enarrationis Libri Octo'* (Prostant Lugduni: Apud Hugonem a Porta) tercetak gambar peta Philadelphia, Egypt pada *Tabula Quarta Asiae* seperti ini:

Sumber: Ptolemy, active 2nd century; Pirckheimer, Willibald; Servetus, Michael; Durer, Albrecht. 1541: lembar ke-226. Clavdii Ptolemaei Alexandrini Geographicae Enarrationis Libri Octo. Prostant Lugduni : Apud Hugonem a Porta. Gambar disajikan oleh Levri Ardiansyah (2017).

Sumber: Ptolemy, active 2nd century; Pirckheimer, Willibald; Servetus, Michael; Durer, Albrecht. 1541: lembar ke-226. Clavdii Ptolemaei Alexandrini Geographicae Enarrationis Libri Octo. Prostant Lugduni : Apud Hugonem a Porta. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Manning, J.G. (2010: 105) berjudul '*The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC'* (Princenton, New Jersey: Princenton University Press) tercetak '*An aerial photograph of Philadelphia showing the basic plan of the town* ' seperti ini:

Figure 6. An aerial photograph of Philadelphia showing the basic plan of the town. Viereck (1928, plate1).

Sumber: Manning, J.G. 2010: 105. The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC. Princenton, New Jersey: Princenton University Press. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Manning, J.G. (2010: 16) berjudul ‘*The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC’* (Princenton, New Jersey: Princenton University Press) tercetak ‘*...the famous pTebt.* III 703. *A “policy manual” written by the dioiketes for the oikonomos in charge of royal revenues in the nome’* seperti ini:

Figure 1. *pTebt.* III 703.

Sumber: Manning, J.G. 2010: 16. The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC. Princenton, New Jersey: Princenton University Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Manning, J.G. (2010) berjudul ‘*The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC’* (Princenton, New Jersey: Princenton University Press) tercetak rupa Ptolemy II seperti ini:

Bust of Ptolemy II, private collection.

Sumber: Manning, J.G. 2010: 184. The Last Pharaohs Egypt under the Ptolemies, 350 – 30 BC. Princenton, New Jersey: Princenton University Press. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada majalah *National Geographic History* (*August/September 2015: 22 & 23*) tercetak *time line* singkat Ptolemy II seperti ini:

Sumber: Gallego, Alejandro. 2015: 22 & 23. National Geographic. August/September 2015. National Geographic History. Washigton D.C.: National Geographic Society Gambar disajikan oleh Levri Ardiansyah (2017).

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Gaul Administration

Pada buku karya Lepawsky, Albert (1949: 94) berjudul '*Administration the Art and Science of Organization and Managemen'* (Calcutta: Oxford & IBH Publishing Co) tercetak:

(c) SCHUYLER WALLACE

"The Great Leviathan and the Science of Administration" [88]

The history of many current administrative institutions leads us far back through Anglo-Norman times into the ages of Roman rule, especially in Gaul After the Roman Empire crumbled, the Christian Church, as a hierarchy of power, survived and in some respects supplanted the Roman government, and still exists in its pristine forms—a chief executive, a college of staff advisers, archbishops, bishops, traveling agents, parish priests, and congregations of the faithful Concerned with the management of property, finances, revenues and privileges, as well as the care of souls, it has survived the revolutions of the centuries and furnished a continuing example of administrative organization and method

Besides the heritage of Roman institutions, both secular and ecclesiastic, has been the heritage of administrative organization and procedure connected with military affairs—one of the first and frequently the

[88] Schuyler Wallace "The Great Leviathan and the Science of Administration' *Federal Departmentalization* A Critique of Theories of Organization Pp 3–4 Reprinted by permission of The Columbia University Press Copyright 1941, The Columbia University Press

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Sumber: Lepawsky, Albert. 1949: 94. Administration the Art and Science of Organization and Management. Calcutta: Oxford & IBH Publishing Co. Gambar disajikan oleh Levri Ardiansyah (2017).

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Normandy

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Untuk mempertahankan penaklukannya, *The Norman* mendapatkan kepemilikan pada negeri. Pada buku karya Skeat, Walter W., (1891: 20) berjudul '*Principles of English Etymology. Second Series. The Foreign Element'* (Oxford at the Clarendon Press) tercetak

§ 15. **Specimen of English, crowded with words of French origin.** (From Schele de Vere; as above.)

To defend his conquest, the Norman gained possession of the country; and, master of the soil, erected fortresses and castles, and attempted to introduce novel terms. The universe and the seasons, the planets and comets, and even the ocean, attest how much was impressed with the seal of the conqueror. . Hills became mountains, and dales valleys, streams were called rivers, and woods forests. The deer, the ox, the calf, the swine, the sheep appeared on the table of the noble as venison, beef, veal, pork, and mutton. Salmon, sturgeon, lamprey, and bream became notable as delicacies; serpents and lizards, squirrels and conies, falcons and herons, quails and pigeons, stallions and hackneys were novel names in the list of the contents of the animal kingdom; whilst the old worts became herbs or vegetables, and included onion and borage, lettuce and sage; together with such flowers as the primrose and violet, peony and gentian, columbine and centaury. New titles of rank and dignity appeared in duke and marquis, count and viscount, baron and baronet, squire and master. The mayor presided at the council above the Saxon alderman. The list of the offices of the government comprised chancellor and peer, chamberlain and ambassador, general and admiral. The king indeed retained his title, but the state and the court became French; the administration was carried on according to the constitution; treaties were concluded by ministers and submitted for approval to the sovereign; the privy council was consulted on the affairs of the empire, and loyal subjects sent representatives to parliament. There the members debated on matters of grave

Sumber: Skeat, Walter W. 1891: 20. Principles of English Etymology. Second Series. The Foreign Element. Oxford at the Clarendon Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Administrasi *Francais*

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Pada buku karya Block, Maurice., (1905: 13, 14 & 15) berjudul '*Dictionnaire de L'Administration Francaise. Cinquieme Edition. Tome I A-E'* (Paris: Berger-Levrault et C[12], Libraires-Editeurs) tercetak:

ADMINISTRATION, 1. 13

ADMINISTRATION. 1. On désigne par ce mot l'ensemble des services publics qui ont pour objet de pourvoir, par l'exécution des lois, aux besoins ou aux intérêts collectifs des citoyens, les attributions de ces services, leurs pouvoirs et leur mode de procéder.

SOMMAIRE.

14 ADMINISTRATION, 2-5.

CHAP. I. — INTRODUCTION.

2. Les services publics dont l'ensemble constitue l'administration tendent à assurer à tous les citoyens la sécurité, la justice, l'assistance, l'hygiène, l'instruction, les facilités de communication et d'échange, etc... L'administration comporte donc un assez grand nombre de branches dont les principales seront énumérées ci-après avec plus de détails.

3. Ces différents services ont pour organes des agents et des conseils ou corps délibérants dont il est traité également ci-dessous.

4. Le droit administratif forme le corps des lois, décrets, ordonnances, règlements, arrêtés, instructions, etc., rendus pour instituer les organes dont il s'agit et régler leur fonctionnement.

On demande souvent pourquoi il n'existe pas un code administratif, comme il existe un code de commerce, un code pénal, etc. La réponse est simple. Ces codes règlent des intérêts privés reposant tous — directement ou indirectement — sur un petit nombre de principes, relatifs à la constitution de la famille et de la propriété, qui sont presque immuables dans les sociétés modernes. Le droit administratif est également régi par des principes généraux ; mais leur application est influencée par les circonstances politiques et sociales. Sans cesse de nouveaux besoins surgissent ; des faits imprévus se présentent et provoquent de nouvelles mesures, de nouvelles dispositions législatives. Un code renfermant le recueil de ces textes serait en état de perpétuelle transformation.

5. D'un autre côté, la législation administrative est appelée à régler des matières si nombreuses et si différentes les unes des autres, qu'il paraît difficile et peut-être illogique de les réunir en un seul code. Le droit privé n'est-il pas également divisé en plusieurs ? Or, rien n'empêche de considérer comme autant de codes les lois organiques qui régissent les principales parties de l'administration.

En tout cas, ce qui importe, c'est que les dispositions législatives soient suffisamment précises et complètes, pour que chaque service public se trouve réglé, chaque intérêt protégé, en un mot, pour que la grande machine administrative, dont nous allons indiquer le mécanisme, puisse fonctionner sans entrave et avec la régularité indispensable au bien public.

CHAP. II. — DE L'ADMINISTRATION EN GÉNÉRAL ET DE SES RAPPORTS AVEC LES POUVOIRS DE L'ÉTAT.

Sect. 1. — Des pouvoirs de l'État.

6. La société ne saurait exister sans lois. Les lois sont en général établies d'une manière solennelle et en suivant des formes particulières. En France, la Constitution prescrit le mode d'après lequel les lois doivent être faites. Émanant soit de l'initiative du Gouvernement, soit de celle d'un ou de plusieurs sénateurs ou députés, elles sont parfois préparées par le Conseil d'État, toujours délibérées et votées par les représentants de la nation et promulguées par le chef de l'État.

7. L'exécution des lois est assurée par le pouvoir exécutif, qui réunit en lui trois autorités, dont les fonctions sont bien distinctes : le Gouvernement, l'autorité administrative et l'autorité judiciaire.

ADMINISTRATION, 6-9.

Le Gouvernement[1] comprend la direction supérieure des intérêts de l'État, tant à l'extérieur qu'à l'intérieur : il donne l'impulsion à l'administration, et la justice se rend en son nom.

Les deux autorités, administrative et judiciaire, sont l'une et l'autre appelées à exécuter ou à appliquer les lois ; mais chacune exerce sa fonction dans une sphère particulière.

Sect. 2. — De l'administration en général.

8. L'administration comprend, en principe, la justice : en fait, l'autorité administrative est chargée de juger presque tous les différends qui n'ont pas un caractère exclusivement privé. Mais on réserve le nom d'autorité judiciaire aux tribunaux de tout ordre chargés du règlement des litiges privés ; l'organisation seule de ces tribunaux ressortit au droit administratif, à l'exclusion de leur fonctionnement.

On doit distinguer, d'autre part, l'administration du Gouvernement.

9. L'autorité gouvernementale et l'autorité administrative sont souvent réunies dans la même personne, comme dans celle du chef de l'État ou des ministres ; fonctionnaires et agents administratifs sont hiérarchiquement subordonnés aux membres du Gouvernement, et font, pour ainsi dire, corps avec lui.

Mais ces deux autorités n'en sont pas moins distinctes l'une de l'autre, comme la volonté et l'action. C'est le Gouvernement, représenté, dans la Constitution actuelle, par le chef de l'État et les ministres, qui dirige, qui donne l'impulsion ; c'est l'administration qui agit, qui exécute[1]. Pour

1. Le sens du mot *Gouvernement* n'est pas encore fixé par l'usage. Selon la plupart des auteurs, le Gouvernement c'est la direction supérieure de l'État, de l'administration et de la justice ; c'est plus que le pouvoir exécutif, car le pouvoir parlementaire y participe indirectement en mettant en jeu la responsabilité ministérielle. D'autres considèrent *Gouvernement* purement et simplement comme synonyme de *pouvoir exécutif,* le pouvoir

ADMINISTRATION, 10-12.

faire comprendre l'importance pratique de cette distinction, il suffit de citer un exemple. Quand une loi charge expressément un fonctionnaire, soit un préfet, de l'exécution d'une de ses dispositions, ce magistrat ne se croit pas autorisé à l'appliquer avant d'en avoir reçu l'ordre du ministre. Ainsi, quoique la loi désigne un agent déterminé de l'administration, celui-ci ne peut agir qu'après avoir reçu l'impulsion et la direction de ses chefs hiérarchiques.

Sumber: Block, Maurice. 1905: 13, 14 & 15. Dictionnaire de L'Administration Francaise. Cinquieme Edition. Tome I A-E. Paris: Berger-Levrault et C12, Libraires-Editeurs. Gambar disajikan oleh Levri Ardiansyah (2017).

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ADMINISTRATION, 10-12.

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10. L'autorité exercée par l'administration lui est déléguée, soit d'une manière générale par le fait de son institution, soit d'une manière particulière par une loi spéciale. Il est des lois qui règlent tous les détails et n'attribuent à l'administration que l'exécution pure et simple de ses prescriptions; il en est d'autres qui posent seulement les principes, et confient à l'administration le soin de faire les règlements nécessaires pour leur application; d'autres enfin, et le nombre en est grand, se bornent à la charger d'un service public, en lui laissant toute latitude pour l'exécution.

11. Cette latitude est souvent indispensable en présence des innombrables intérêts qui s'entrechoquent et se croisent, des circonstances locales si variées, des événements de toute nature qui peuvent surgir. Quelque claire et précise que soit une loi, il est probable qu'elle sera mal comprise par l'un, mal interprétée par l'autre, ou que son application rigoureuse rencontrera, dans certains cas, des obstacles insurmontables. Les difficultés qui naîtront, le fonctionnaire compétent devra les résoudre selon les circonstances. C'est ici que l'adage « administrer c'est transiger » pourra trouver quelquefois une utile application.

De plus, il est des difficultés qui se produisent fréquemment et sans grandes variations. Si l'on ne trouve pas dès l'abord la meilleure solution, après quelques tâtonnements on apprend à éviter les inconvénients qui ont pu résulter des premières décisions, et on ne tarde pas à voir la jurisprudence qu'il convient d'adopter. Il se forme ainsi, dans les bureaux, une tradition dont le public n'apprécie peut-être pas assez la haute utilité, quoiqu'il en profite tous les jours.

12. Citons maintenant les principales attributions de l'administration :

Elle établit les règlements généraux ou spéciaux considérés comme complément nécessaire de la loi, et dont la préparation lui a été déléguée implicitement (règlement administratif) ou explicitement (règlement d'administration publique) [*voy. ce mot*] ;

Elle prescrit des mesures générales obligatoires, soit pour la totalité des citoyens, soit seulement pour une classe d'entre eux, et en surveille l'exécution ;

Elle autorise la création de certains établissements publics ou privés, et exerce une tutelle légale sur les uns, et un contrôle d'ordre public sur les autres;

judiciaire non compris. Une troisième manière de voir consiste à entendre par *Gouvernement* la puissance publique tout entière, renfermant les pouvoirs législatif et exécutif. Nous penchons pour cette dernière définition, mais nous avons cru devoir nous soumettre à l'usage le plus général.

ADMINISTRATION, 13-15. 15

Elle accorde la concession de choses ou de droits mis à sa disposition par les lois ;

Elle demande les renseignements qui lui sont nécessaires, fait les recensements, prépare les listes de recrutement, des électeurs, des jurés, etc. ;

Elle fait cesser tout ce qui est contraire aux lois, aux règlements, aux intérêts généraux ou particuliers, à la morale ou à la sécurité publique ;

Elle réprime certaines contraventions et provoque la punition des autres, ainsi que les crimes et les délits ;

Elle gère la fortune publique, dirige la répartition des impôts; recouvre les contributions, fait les dépenses nécessaires pour le bien de l'État, et en rend compte ;

Elle fait exécuter les travaux publics, soit directement par ses agents, soit sous leur surveillance, et procède, avec le concours de l'autorité judiciaire, à l'expropriation pour cause d'utilité publique;

Elle examine les réclamations qui lui sont adressées, y fait droit s'il y a lieu, et juge les contestations qui s'élèvent sur ses actes ;

Elle est chargée de l'assistance publique et de la protection de ceux qui sont hors d'état de se protéger eux-mêmes ;

Enfin, elle nomme et révoque ses agents, ainsi que divers officiers publics : elle leur trace leurs devoirs, les éclaire, les surveille, les encourage ou, le cas échéant, les punit.

Sect. 3. — Rapports de l'administration avec l'autorité judiciaire.

13. Nous n'avons pas à nous étendre sur les rapports de l'administration soit avec le pouvoir législatif, soit avec le Gouvernement. Nous avons déjà eu l'occasion de dire qu'elle est subordonnée au Gouvernement, comme le bras l'est à la tête, et que ses rapports avec le pouvoir législatif sont indirects, puisqu'ils ont lieu par l'intermédiaire du Gouvernement.

14. Les rapports de l'administration avec la justice sont d'une nature plus délicate. Ces deux autorités sont parallèles et indépendantes l'une de l'autre; elles se secondent et se complètent mutuellement, et sont également indispensables au bien de l'État. Elles diffèrent, du reste, par leur nature, leur puissance, leur objet et leur forme de procéder.

Par leur nature : car l'autorité judiciaire est déléguée, dans la plupart des cas, à des juges inamovibles ou élus, tandis que l'autorité administrative est confiée à des fonctionnaires révocables.

Par leur puissance : l'administration jouit, dans de certaines limites, d'un droit d'initiative ; elle agit quand elle le croit utile, sans attendre qu'elle soit invoquée ; elle prescrit des mesures obligatoires pour les citoyens. La justice, au contraire, doit presque toujours être saisie, elle ne décide ni ne prescrit rien de sa propre initiative.

Par leur objet : puisque l'administration est chargée des intérêts généraux, tandis que la justice a pour mission la solution des difficultés qui s'élèvent entre des intérêts privés.

Par leur forme de procéder, enfin, qui est solennelle et d'une lenteur calculée pour la justice, simple et souvent rapide pour l'administration.

15. D'un autre côté, on comprendra que, dans

16 ADMINISTRATION, 16-18.

une société où tout se tient, il existe nécessairement des points de contact, des rapports assez nombreux entre deux autorités dont chacune remplit des fonctions particulières.

Ainsi, l'administration comparaît devant la justice pour représenter les propriétés de l'État ou des établissements publics ; elle pourvoit aux dépenses occasionnées par les tribunaux; elle concourt à l'exécution des jugements ; elle nomme et surveille les officiers ministériels.

Les tribunaux, de leur côté, appliquent les règlements portés par l'administration dans l'exercice de ses attributions ; ils reçoivent les déclarations, les serments de quelques-uns de ses agents dont les procès-verbaux font foi en justice ; ils statuent sur les questions de possession ou de propriété du domaine de l'État et les difficultés relatives aux taxes sur l'enregistrement, le timbre, les douanes et les contributions indirectes.

Sect. 4. — Conflits.

16. Toutefois, quelque bien définies que soient en apparence les attributions respectives de l'administration et des tribunaux, leurs ressorts se touchent et s'enchevêtrent assez pour qu'il soit quelquefois difficile de les distinguer. Il arrive alors de deux choses l'une : ou chacune de ces deux autorités se croit compétente, ou toutes les deux se déclarent incompétentes. Dans le premier cas, il y a *conflit positif*; dans le second, *conflit négatif*. Le règlement de ces conflits est opéré par une autorité supérieure chargée de maintenir chaque pouvoir dans la sphère de ses attributions. (*Voy.* **Conflit.**)

Sect. 5. — Du contentieux.

17. Il est évident que les conflits entre les autorités administrative et judiciaire, dont nous venons de parler, ne sauraient avoir lieu qu'à l'occasion d'intérêts privés. En effet, la société se composant d'individus, et l'administration étant appelée à prescrire des mesures d'intérêt général, elle doit se trouver plus d'une fois dans le cas de froisser des intérêts privés. Il arrivera même assez souvent qu'un acte administratif lèsera certains droits privés régulièrement établis, de sorte que le particulier sera fondé à ouvrir une action judiciaire. Qui jugera ?

Il faut distinguer. Le particulier peut élever une réclamation en faveur de ses intérêts lésés, ou une contestation relativement à des droits méconnus. Dans le premier cas, il n'a d'autre moyen que de s'adresser à l'autorité administrative supérieure, par la voie dite *gracieuse*. Il fait un appel au pouvoir discrétionnaire de l'administration, la priant de trouver une transaction équitable entre des intérêts généraux et des intérêts privés également confiés à sa sollicitude.

Dans le second cas, lorsqu'il prétend qu'on a porté atteinte à ses droits, la voie gracieuse n'est pas indiquée ; nous ne saurions admettre, en effet, que la reconnaissance d'un droit doive dépendre du bon vouloir d'un fonctionnaire, même juste. La raison publique demande un tribunal pour juger ce qu'on appelle le *contentieux* administratif ; il y est pourvu au moyen des juges administratifs. (*Voy.* nos 83 et suiv. ci-après.)

CHAP. III. — OBJETS DE L'ADMINISTRATION.

18. L'administration a pour objets principaux :

ADMINISTRATION, 19-28.

la sécurité publique à l'extérieur et à l'intérieur, l'hygiène, l'assistance, la fortune, la morale et la richesse publiques.

Sect. 1. — Sécurité publique extérieure.

19. On peut ranger sous cette rubrique trois services :

20. 1° *Ministère des affaires étrangères*. C'est l'organe du Gouvernement dans nos relations avec les autres États. Ce sont les agents *diplomatiques* ressortissant à ce ministère qui, en temps de paix, protègent à l'étranger les citoyens français.

21. 2° *Ministère de la guerre*. L'armée de terre est dans ses attributions. Il s'occupe du recrutement, de l'habillement, de la nourriture, du logement, de l'instruction, de l'état sanitaire des hommes appelés sous les drapeaux ; il les distribue dans les places de guerre; il désigne ceux qui, au besoin, doivent marcher contre l'ennemi.

22. 3° *Ministère de la marine*. Ce que le ministère de la guerre est pour l'armée de terre, le ministère de la marine l'est pour la force maritime. Le ministère des colonies coopère, avec les départements de la guerre et de la marine, à la défense du pays.

Sect. 2. — Sécurité publique intérieure.

23. La sécurité publique est un des premiers besoins du corps social. L'autorité qui en est plus spécialement chargée s'appelle *police*, mot que la science emploie dans un sens plus large que le langage vulgaire.

24. La *sûreté de l'État* doit être le premier soin de la police. Pour lui faciliter cette tâche si importante, le législateur l'a armée des lois sur la presse, sur les afficheurs, les crieurs publics, les colporteurs, les cabarets, sur la détention d'armes et de munitions de guerre, sur les attroupements, sur l'état de siège, etc.

25. La *protection des personnes* comporte les mesures prises pour la poursuite des malfaiteurs, la défense du port d'armes secrètes, la prohibition de la vente d'aliments malsains, la surveillance du débit des matières vénéneuses, la police des subsistances, la police sanitaire des animaux et les règlements sur l'hygiène publique.

26. Vient ensuite la *protection des propriétés*. Elle renferme dans son cadre une foule de dispositions appartenant à la police rurale, la police des cours d'eau, les règlements relatifs aux objets trouvés, aux incendies, aux animaux abandonnés, etc.

27. Ce n'est pas tout. La sollicitude de la police s'étend encore : sur la circulation, qu'elle débarrasse de tout ce qui peut la gêner ; sur le commerce, en surveillant les halles et marchés, les poids et mesures, en prévenant ou faisant punir les fraudes et falsifications ; sur l'industrie, par les prescriptions relatives à la liberté du travail et à l'emploi des enfants dans les manufactures, aux coalitions, à la contrefaçon, à certains ateliers, etc.

28. Le ministère de l'intérieur est chargé de la sécurité publique, et ses agents sont au besoin secondés dans leur mission par la gendarmerie, force publique dépendant du ministère de la guerre. La plupart des mesures concernant la police rurale, les subsistances, le commerce et l'industrie, sont dans les attributions du ministère

Sumber: Block, Maurice. 1905: 15 & 16. Dictionnaire de L'Administration Francaise. Cinquieme Edition. Tome I A-E. Paris: Berger-Levrault et C12, Libraires-Editeurs. Gambar disajikan oleh Levri Ardiansyah (2017).

French Administration 1600 - 1787
English Administration 1584 - 1606
British Administration 1780 – 1902
European Administration 1787 – 1902
American Administration 1787 – 1902

Pada buku karya Snow, Alpheus H., (1902) berjudul '*The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems'* (New York and London: G. P. Putnam's Sons, The Knickerbocker Press) tercetak:

THE ADMINISTRATION
OF DEPENDENCIES

A STUDY OF
THE EVOLUTION OF THE FEDERAL EMPIRE,
WITH SPECIAL REFERENCE TO AMERICAN
COLONIAL PROBLEMS

BY
ALPHEUS H. SNOW

G. P. PUTNAM'S SONS
NEW YORK AND LONDON
The Knickerbocker Press
1902

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Sumber: Snow, Alpheus H. 1902. The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems. New York and London: G. P. Putnam's Sons, The Knickerbocker Press. Gambar disajikan oleh Levri Ardiansyah (2018).

French Administration

Berdasar cetakan sejarah, sejak tahun 987 hingga tahun 1620, sekira 8 abad sebelum *French revolution,* raja menjalankan kekuasaan berdasarkan *French jurisprudence.* Kala itu tidak ada Undang-Undang Dasar tertulis dan tidak ada sistem pemilu hingga abad ke-17 barulah *France* menjalankan pemerintahan dan sukses memantapkan sistem pemerintahan hingga pertengahan abah ke-18. Pada buku karya Snow, Alpheus H., (1902: 11 & 12) berjudul '*The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems'* (New York and London: G. P. Putnam's Sons, The Knickerbocker Press) tercetak: '*... before the French Revolution, the King, in exercising the supreme power, stood, according to the theory of French jurisprudence.... No written Constitution had ever been dreamed of. No system of popular elections was considered desirable. Yet there was, until the seventeenth century, at least, a good and orderly government. France was a great nation and successfully governed throughout a great domain until the middle of the eighteenth century'*. Kutipannya tergambar seperti ini:

CHAPTER I

FRENCH ADMINISTRATION, 1600–1787

FOR eight centuries before the French Revolution, the King, in exercising the supreme power, stood, according to the theory of French jurisprudence, in a fiduciary relation to the people, being regarded as under an obligation to decide problems of government scientifically and judicially. No written Constitution had ever been dreamed of. No system of popular elections was considered desirable. Yet there was, until the seventeenth century, at least, a good and orderly government. France was a great nation and successfully governed throughout a great domain until the middle of the eighteenth century.

Vicomte d'Avenel, in his *Richelieu et la Monarchie Absolue*, published in 1895, speaking of the Constitution of France during the period of the traditional monarchy, —from 987 to 1620,—quotes with approval the saying of Bodin in his treatise *De la République*, published in 1580:

> The royal or legitimate monarchy is that in which the subject obeys the laws of the monarch and the monarch the laws of nature, leaving to the subjects their natural liberty and their private property.

Vicomte d'Avenel, in the course of his remarks on the way in which these principles were worked out during the traditional monarchy, says:

> The relationship between the King and the subject differed from that between lord and vassal, in that the King was the

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> only lord in France who made oath to his vassals. . . . There were in France sovereign laws, which were supreme over the power of the King, and according to which he was obliged to direct his political life; in his private life, the King was only a private citizen before the proper courts. . . . The fundamental laws of the Kingdom were nothing but legal usages, which were binding on the monarchs themselves. Whether written or unwritten, whether enacted by a previous King or deriving their force from tradition only, these laws were regarded as unchangeable. "They have been observed for so long," says Seyssel, in 1519, in his book *La Grande Monarchie de France*, "that the Kings do not undertake to interfere with them, and when they wish to do so, no one obeys their commands." . . . Although the King possessed the legislative power, nevertheless if he saw fit to change, by edict, certain ancient arrangements (*dispositions*) ratified by public opinion, he was reproached with having violated the laws of the State, as if the consecration of time had given them an indestructible force. This regard for tradition appears incessantly in the writings and public discourses of the period. Under Louis XIII. [from 1610 to 1643, during which time, under the influence of Richelieu, the traditional monarchy ceased to exist except in theory], writers and public speakers were in the habit of citing freely, as authorities, the acts, the charters, or the bulls of the first Capetian Kings, and even those of earlier date. In the books, when a subject was examined, the author went back to the times of the Greeks and Romans. . . . In the matter of taxation, the right of the King was remarkably limited. The States-General not only discussed the necessity of the *aide*, but also determined the manner in which it should be levied and collected. . . . The principle that taxes are not legal except by consent of the people who pay them was violated more than once before the time of Louis XIII., but it had not ceased to be recognized even then. It was the doctrine of Old France. Every one knows what happened later on, but no one, in those old days, could have imagined the "*taillable et corvéable à merci*" of Louis XIV.

Sumber: Snow, Alpheus H. 1902: 11 & 12. The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems. New York and London: G. P. Putnam's Sons, The Knickerbocker Press. Gambar disajikan oleh Levri Ardiansyah (2018).

Raja bertindak berdasarkan nasehat dari *expert counsellor* yang beberapa diantaranya merupakan menterinya (*his Ministers*). Pada buku karya Snow, Alpheus H., (1902: 13) berjudul '*The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems'* (New York and London: G. P. Putnam's Sons, The Knickerbocker Press) tercetak '*Throughout the existence of the traditional monarchy, the King acted by the advice of expert counsellors, some of whom acted as his Ministers'.* Selama periode monarki tradisional, praktik pemerintahan terkristalisasi pada *French language* yang mengekspresikan kekuasaan raja berdasarkan *unwritten Constitution of France.* Dua kata yang mengekspresikan kekuasaan raja ini merupakan kata kerja yakni (1) *Ordonner;* dan (2) *Disposer.* Kedua kata kerja ini meski berbeda kemudian memiliki makna yang sama hingga keduanya merupakan sinonim. Pada '*The Grand Vocabulaire Francois of 1770'* tercetak definisi *'Ordonnance (ordinance) as a disposition'.* Kata kerja *disposer (*atau *'dispose')* dan ekspresi *disposer de (dispose of)* berasal dari Bahasa Latin yakni kata *" dispono,"* yang berarti '*of conforming things to a*

certain order in the ends of propriety and justice, and implied that in each case there was some orderly and proper course of action',

Beda tegasnya, *ordonnance* merupakan tindakan menata bagian-bagian secara teratur (*orderly arrangement of parts*), sedangkan *disposer* merupakan tindakan mengatur dengan cara membatalkan, menempatkan, membuang maupun *setting things aor actions in their proper order*. Bentuk keduanya dinyatakan berupa hukum (*law*), putusan (*decree*), termasuk juga berupa kebijakan (*policy*). Kerja *dispose* lazimnya menjadi *domain* bangsa (*nation*) maupun *the State*, sedangkan *ordonner* dan *disposer* secara bersamaan diterapkan pada *the empire.* Dengan begini, '*a disposer de'* atau '*to dispose of*' merupakan tindakan oleh penguasa tertinggi pada *a State* berkenaan dengan penataan pertanahan yakni penggunaan *private property* untuk kepentingan publik oleh *the State* termasuk mengendalikan tindakan orang per orang berdasarkan *legislative action.* Kutipan halaman 13 dan 14 buku karya Snow, Alpheus H., (1902) berjudul '*The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems'* (New York and London: G. P. Putnam's Sons, The Knickerbocker Press) tergambarkan seperti ini:

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From the beginning of the Capetian monarchy, we observe two distinct kinds of legislative acts of the King; one relating to the domains of the King, in which he speaks in his own name; the other relating to the whole of France, emanating from the united action of the King and Barons,—often even from that of the King and the people. . . . Seyssel thinks that "it is necessary the important affairs of the Kingdom should be consulted upon by a Council of personages drawn from the different Estates, both ecclesiastical and secular." Bodin regards it as less dangerous to have a bad King, guided by a good Council, than a good King, guided by a bad Council.

Throughout the existence of the traditional monarchy, the King acted by the advice of expert counsellors, some of whom acted as his Ministers.

During this period, this theory of government became crystallized in the French language, and the study of the words they used to express the exercise of the supreme power is, in fact, a study of the unwritten Constitution of France. The two words which expressed the exercise of the supreme power were the verbs *ordonner* and *disposer*. Of these the latter was the more strictly generic, though the former was used also in a generic sense. The *Grand Vocabulaire François* of 1770 treats the words as synonymes, defining *ordonnance* (ordinance) as a *disposition* (disposition).

Vattel, writing of the general public law in 1758, in his great work, *The Law of Nations*, said of the power of the state:

Le pays qu'une nation habite . . . est l'établissement de la nation; elle y a un droit propre et exclusif.

Ce droit comprend deux choses: 1. Le domaine, en vertu duquel la nation peut user seule de ce pays pour ses besoins, en disposer et en tirer tout l'usage auquel il est propre. 2. L'empire, ou le droit du souverain commandement, par lequel elle ordonne et dispose à son volunté de tout ce qui se passe dans le pays.

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A translation of which is:

The country which a nation inhabits . . . is the establishment of the nation; in this country it has a proprietary and exclusive right.

This right includes: 1. The domain, by virtue of which the nation may exclusively use the material resources of the country for its needs, may dispose of them, and may draw from them every kind of utility which pertains to them. 2. The empire, or the right of supreme command over persons, by virtue of which it orders and disposes, according to its will, of the whole intercourse and commerce of the country.

Every act of the depositary of the supreme power in a State, therefore, according to Vattel, whether it relates to the partition of the soil or other arrangements concerning it, or to the use by the State of private property for public uses, or to grants of governmental authority over persons, or to the control of the action of persons by legislative action, was properly described, in 1758, by the expression "*à disposer de*"—" to dispose of."

Vattel's definition of the right of the depositary of the supreme power in the state is called "classic" by the editor of the great French Encyclopædia of Law (Dalloz, *Répertoire de Législation, de Doctrine, et de Jurisprudence*).

The verb *disposer* (our word "dispose") and the expression *disposer de* (our expression "dispose of") carried with them the idea, brought over from the Latin word "dispono," of conforming things to a certain order in the ends of propriety and justice, and implied that in each case there was some orderly and proper course of action, as contradistinguished from all other possible courses, and that the person who "disposed of" the particular case occupied himself with ascertaining, either from expert knowledge or by a new investigation, the orderly and proper course, and, having discovered it, applied it in the particular case. His action was called a

Sumber: Snow, Alpheus H. 1902: 13 & 14. The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems. New York and London: G. P. Putnam's Sons, The Knickerbocker Press. Gambar disajikan oleh Levri Ardiansyah (2018).

Disposisi merupakan kekuasaan, yakni kekuasaan yang dijalankan berdasarkan pengetahuan tertentu. Pada buku karya Snow, Alpheus H., (1902: 15) tercetak '*If the power within the sphere of action was exercised expertly, it was regarded as disposition'*. Disposisi ini terkait erat dengan istilah legislasi dan yuridiksi. Legislasi merupakan tindakan membuat perintah (*making of command*). Pada buku karya Snow, Alpheus H., (1902: 15) tercetak '*Distinguished from disposition was l^gislation, which implied the making of commands according to the mere will of the depositary of the supreme power...'*. Sedangkan yuridiksi merupakan tindakan menyatakan kekuasaan berupa hak-hak tertentu. Pada buku karya Snow, Alpheus H., (1902: 15) tercetak *'The word juridiction was more commonly used to describe supreme power exercised by way of disposition, and quite properly, when the literal meaning of the word — "the declaring of the right in the particular case "—is considered'*. Dengan pengertian disposisi sebagai kekuasaan ini sendiri, yurisdiksi berarti *the declaring of disposition.* Kutipan halaman 15 dan 16 buku karya Snow, Alpheus H., (1902) berjudul '*The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems'* (New York and London: G. P. Putnam's Sons, The Knickerbocker Press) tergambarkan seperti ini:

French Administration, 1600–1787 15

" disposition of " the matter. He " disposed of " problems of motion or action; he " disposed " things or actions by setting them in their proper order.

The word *disposer* and the expression *disposer de* were, therefore, those which were peculiarly appropriate to express the exercise of supreme power which was required by the Constitution to be exercised expertly. They had no reference to the extent or the sphere of the power. The sphere or extent might be small or great, with specific limits or with indefinite. If the power within the sphere of action was exercised expertly, it was regarded as *disposition*. Distinguished from *disposition* was *législation*, which implied the making of commands according to the mere will of the depositary of the supreme power—that is, without the recognition of any condition as to the manner of the exercise of the power. The word *juridiction* was more commonly used to describe supreme power exercised by way of disposition, and quite properly, when the literal meaning of the word—" the declaring of the right in the particular case "—is considered. The supreme power exercised within the state was spoken of as *juridiction*, as distinguished from the supreme power exercised outside the state and with reference to international questions, which was called *souveraineté*. The word *juridiction* was used to express the exercise of the power, the word *disposition* to describe the power itself. The King in exercising the power of *disposition* was said to have *juridiction* over the land and things concerning the transfer of which, and the persons concerning the actions of whom, *disposition* was made.

The French for many centuries past have commonly used the expression *les dispositions des lois*, where we should say " the provisions of the laws." Doubtless both expressions are relics of the conception of the moral obligation attached to the exercise of the supreme power requiring that it shall be exercised not according to mere

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will, but according to principles carefully ascertained and properly applied.

Although the legislative acts of the King, as compared one with another, were classified as *ordonnances*, which were fundamental laws or laws of great importance, *édits* (edicts), which were acts of ordinary legislation to meet changing circumstances, and *déclarations* (declarations), which were interpretations or explanations of existing laws, they were all called, as distinguished from the acts of subordinate officers and tribunals, *ordonnances*. All acts of subordinate officers and tribunals were called *réglements* (regulations). Dispositions made by the King usually related to matters of public concern, while those made by subordinate officers and tribunals usually related to matters of private concern—that is, directly affected individual life, liberty, or property. Hence, in process of time, the acts of the King relating to matters of private or particular concern came to be called *réglements;* and thus the acts of the King became divided into two kinds, *ordonnances* and *réglements*.

The power of disposition of the King extended, of course, to everything that was recognized as within the power of the State. The King, therefore, "disposed of" what Vattel called "the domain" and "the empire" of the State. Dispositions of the domain were the partition of unoccupied land for the purpose of settlement and determinations of the right of partition or ownership of settled lands; and, as the domain included the power not only over the land, but of every product or division of the land, the disposition of it included power over all private property exercised by way of seizure for public use (expropriation), or for the support of the government (taxation). Dispositions of the empire were the partition of governmental power over the actions of persons to officers, tribunals, and subordinate governments of municipalities and administrative districts. The Local

Sumber: Snow, Alpheus H. 1902: 15 & 16. The Administration of Dependencies a Study of the Evolution of the Federal Empire, with Special Reference to American Colonial Problems. New York and London: G. P. Putnam's Sons, The Knickerbocker Press. Gambar disajikan oleh Levri Ardiansyah (2018).

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The Origin of the Name of Administration

Merunut pemikiran *the origin* akan berujung pada temuan kata mandiri berdasarkan verifikasi fakta yang dilakukan dengan metode eksperimen maupun observasi. Pada buku karya Pressense, E. De. (1885: xxi) berjudul '*A Study of Origins: or the Problems of Knowledge, of Being, and of Duty. Second Edition'* (New York: James Pott & Co, Church Publishers) tercetak '*Task assigned by it to science – the verification of fcts ascertained by experience and their relations, setting aside all explanation of them*' yang kutipannya tergambarkan seperti ini:

BOOK FIRST.

THE PROBLEM OF KNOWLEDGE.

CHAPTER I.

KNOWLEDGE AND POSITIVISM.

The Positivist School repudiates all inquiry into origins. Task assigned by it to science—the verification of facts ascertained by experience and their relations, setting aside all explanation of them. The positive state of the human mind has superseded the two previous states—the religious and the metaphysical. The study of the ego entirely subordinate to that of the external world. Psychology subsidiary to physiology.

Reply.—1st. Inquiry into causes a universal tendency; a constant human fact, therefore a positive fact.

2nd. The permanent coexistence of the three religious states—the religious, the metaphysical, and the positive—demonstrated by history.

3rd. These three states are three aspects of things, all equally necessary for embracing things in their totality. Religion an effort of the soul to come to God. Metaphysics occupied primarily with the investigation of causes. Natural science deals with positive facts. It is supreme in its own domain. The progress of true science consists, not in suppressing any one of these elements, but in making all concur to one common end—by a harmonious division of labour.

Sumber: Pressense, E. De. 1885: xxi. A Study of Origins: or the Problems of Knowledge, of Being, and of Duty. Second Edition. New York: James Pott & Co, Church Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Lepawsky, Albert (1949: 666 & 667) berjudul '*Administration the Art and Science of Organization and Managemen'* (Calcutta: Oxford & IBH Publishing Co) tercetak '*Concurrent Perspectives of Administration*' yang terkutip pada gambar ini:

Administration is, then the area of activity which emphasizes the maintenance of control, a problem which arises mainly in terms of relating the Formal and Material points of view in experience The administrator is one who maintains the relation between the categories of Law and the State In specific terms, this would describe the duties of executive and judiciary within our system of government But this is only the more restricted, or perhaps more formal, sense of Administration It is apparent that the most important element of Administration is the adjustment to vocational and industrial functions, of distribution and consumption,

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which are the instruments of whatever order may be given to the Material aspect of experience. These are the activities and functions which the executive and the judge must reduce to order. Thus, we do not expect the administrator to act with the remarkable precision of the physical scientist, nor yet maintain the degree of agreement brought about by the vocational scientist; but we must demand that his activity be directed toward the maintenance of order in relation to material institutions. This order will take the form of Law.

This reasoning, of course, suggests that the customary distinctions between administrative, executive and adjudicative functions are distinctions of degree rather than of kind. Here we have considered them together under the general science of Administration. More specifically, the executive function might be described in terms of direction and coordination of Administration. The function of the executive branch of government is literally the basis of order in the State, and order is made possible by the various administrative agencies which alone can control the material process of experience.

American theorists of administration like Dwight Waldo have also characterized administrators as "specialists in generalization." [55] British philosophers of management like Oliver Sheldon have likewise pointed out that management, as "the coordination, organization, and direction of sciences, is itself a science." [56] But Glenn Negley is the rare philosopher of knowledge who has with equal conviction elevated the study of administration to the highest position in the scientific hierarchy.

Sumber: Lepawsky, Albert. 1949: 666 & 667. Administration the Art and Science of Organization and Management. Calcutta: Oxford & IBH Publishing Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Berpikir tentang eksistensi Ilmu Administrasi juga berarti memikirkan '*The Existence of the Great Laws of Administration'* yakni:

1. *we must reverse our thought in the search for causes and*
2. *take steps toward a conception of the origin of administration and*
3. *conception of the nature of administration*

Pada buku karya Osborn, Henri Fairfield (1917:10 & 11) berjudul '*The Origin and Evolution of Life on the Teory of Action, Reaction and Interaction of Energy*' (New York: Charles Scribner's Sons) tercetak:

Moreover, all the explanations of evolution which have been offered by three generations of naturalists align themselves under two main ideas only. The first is the idea that the causes of evolution are chiefly from without inward, namely, beginning in the environment of the body and extending into the germ: this idea is *centripetal*. The second idea is just the reverse: it is *centrifugal*, namely, that the causes begin in the germ and extend outward into the body and into the environment.

The pioneer of the first order of ideas is Buffon, who early reached the opinion that favorable or unfavorable changes of environment directly alter the hereditary form of succeeding generations. Lamarck,[3] the founder of a broader and more modern conception of evolution, concluded that the changes of form and function in the body and nervous system induced by habit and environment accumulate in the germ,

Sumber: Osborn, Henry Fairfield. 1917:xiii. The Origin and Evolution of Life on the Teory of Action, Reaction and Interaction of Energy. New York: Charles Scribner's Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

Tahapan pola pikir saya terurai seperti ini: (1) *Administration as a sentient subject* (yang dapat dirasakan dan dilihat ujud faktanya); (2) *Administration as sensible object;* dan (3) *Administration as a thing.* Suka tidak suka, saya harus membayangkan suatu benda tak terketahui dengan kualitas administratif (*sensible administrative qualities*) yang terdapat pada benda itu hingga dapat saya persepsi sebagai administrasi, tepatnya sebagai *a notion of administration* (*obliged to imagine an unknown things as sustaining the sensible qualities, which is the same as administration, somehow, a notion of administration*).

Tahapan pertanyaan berupa '*Question of Philosophy',* dapat terurai pada tiga pertanyaan mendasar yakni (1) '*How is it possible to make a judgement 'Administration as the cause that which affects our life?';* (2) '*How is it possible to make a judgement 'Administration as the result produced by that which affects our life?'* dengan pertanyaan rincinya diantaranya adalah 'Apakah administrasi merupakan *the result produced by organization?*' ataukah (3) '*How is it possible to make a judgement 'Administration as the chance'* yang adanya tak terketahui dan terjadi begitu saja entah bagaimana?'. Tahapan pertanyaan selanjutnya adalah '*Question of Principles',* yakni '*What is the idea of substance of administration?'* dan tahapan terakhir berupa '*Question of Fact',* yakni '*What is administration?'.*

The Origin and Fact
Merunut pemikiran pemikiran Locke, '*The origin of ideas, like everything else, must be discussed on the basis of facts*'. Pada buku karya Serbati, Antonio Rosmini (1883: 19) berjudul '*The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak alasan Locke tentang '*The origin of ideas*' yang dikemukakannya pada diskusi seperti terkutip pada gambar ini:

'I confess,' he says, 'there is another idea [1] which would be of general use for mankind to have, as it is of general talk,[2] as if they had it ;[3] and that is the Idea of *Substance*, which we neither have nor can have by sensation or reflection.'[4]

50. The reasoning of Locke, put in the form of a dialogue, would come to the following :—

Locke: The origin of ideas, like everything else, must be discussed on the basis of facts.

Opponent: Nothing could be better; but pray what are the facts you would start from?

Locke: Sensation and reflection.

Opponent: Well, but how do you, from these two faculties, derive the idea of substance?

Locke: It cannot be derived from them; therefore it does not exist.

[1] Strange contradiction! There is an idea which is not an idea.

[2] How can that which is not an idea form the subject of common talk? That a *thing* which does not actually exist may form the subject of conversation, I can well understand; but that what is not even *thought* of, is not even an *idea*, can be talked about, is to me utterly unintelligible; it is a metaphysical mystery of Lockism.

[3] Again, men make use of an idea, and constantly introduce it into their discourses, without possessing it! Will these philosophers, who pique themselves so much on the clearness and accuracy of their reasonings, be good enough to explain how this can be?

[4] *Essay on the Human Understanding*, Bk. I. ch. iv. § 18.

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Sumber: Serbati, Antonio Rosmini. 1883: 19. The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Locke menyadari bahwa ada ide yang dinilai sebagai '*another idea*' dan merupakan *strange contradiction* karena dipandang bukan merupakan ide (*there is an idea which is not an idea*). Bagi para pemikir lain, *sensation* dan *reflection* dipandang bukan merupakan *thing,* yang dalam kalimat halus dinyatakan sebagai *thing which does not actually exist.* Bagi Locke, *sensation* merupakan *thing* karena stimulannya berujud benda fisik yang bersentuhan dengan kulit sensitif hingga menimbulkan *pleasure and pain*. Meski Locke mengakui bahwa ide bukan merupakan *thing* melainkan *object.* Pada buku karya Ardiansyah, Levri

(2017: 33 & 34) berjudul ‘*Earth and the Laws of Association*’ tercetak ‘Merunut pemikiran pemikiran Locke, sebagai objek, ide berangkaian berupa *the series of ideas* yakni *general, abstract* dan *universal* yang terdiri dari *reflection* maupun *sensation’.* Dengan begini, *reflection* maupun *sensation* bukan merupakan ide ini sendiri. Bagi Locke *sensation* merupakan *simple ideas* berupa *pleasure and pain*, sedangkan *reflection* merupakan *‘an inner sense’* yang turut menentukan mengalirnya ide (*the flow of our ideas*) hingga terbentuknya ide. *The actual flow of ideas* inilah yang merunut pemikiran pemikiran Locke berlangsung berdasarkan ‘*The Laws of Association*’. Kutipannya tergambar seperti ini:

To Locke, further, reflection was largely a passive power; it was reflection *upon* the course or flow of our ideas, not reflection as itself determining this flow or course to be what it is. Reflection is an "inner sense." The actual flow of ideas is due to the laws of association, a term first used, though in a special reference, by Locke. So while the mind reserved the power of thought or reflection, still all other contents, together with the laws of organisation of these contents in complex ideas, were due to sensations and their interaction. As over against rationalism, the programme of a mental mechanics, a pure "presentationism," was suggested in anticipation; and at the hands of Hume and the Associationists, this programme was to be speedily realised.

Sumber: Baldwin, James Mark. 1913:4. History of Psychology A Sketch and an Interpretation Volume 2. London: Watt & CO. Gambar disajikan oleh Levri Ardiansyah (2017).

Untuk membuktikan pemikirannya bahwa *reflection* memiliki keterkaitan erat terhadap ide berdasarkan ‘*The Laws of Associaton*’ Locke melakukan *inductive proof,* seperti terbaca pada buku karya Baldwin, James Mark (1913:3) berjudul ‘*History of Psychology A Sketch and an Interpretation Volume 2*’ seperti ini:

The ideas of reflection are not innate; there are no innate ideas. This Locke argues with great wealth of inductive proof; but by innate ideas he generally means actual conscious presentations or images. He shows that children lack innate ideas in this sense. This Leibnitz was able to meet by postulating "unconscious presentations," which slumber in obscure form and in the undeveloped psychic modes, but are still essentially innate. The admission by Locke of certain inherent "powers" or functions would seem to leave open the door for the later critical distinction between the *a posteriori* or experiential content, and the *a priori* or native form, in the structure of knowledge.

Sumber: Baldwin, James Mark. 1913:3. History of Psychology A Sketch and an Interpretation Volume 2. London: Watt & CO. Gambar disajikan oleh Levri Ardiansyah (2017).

Inductive proof yang dilakukan Locke dengan eksperimen tentang '*relativity of temperature*' terhadap tangan, air dan mata bertujuan untuk menunjukan bahwa kedua tangan merasakan air yang sama sebagai temperatur yang berbeda (*two hands feel the same water as of different temperature*). Eksperimen terhadap mata dilakukan Locke untuk menunjukan adanya *inability of the attention* pada mata.

Locke focused certain problems by means of experiment also. His proof of the relativity of temperature is classical: he pointed out that the two hands feel the same water as of different temperatures when they themselves are. He also demonstrated the limited area or span of consciousness, by showing the inability of the attention to take in more than a certain number of items or units exposed simultaneously to the eye.

Sumber: Baldwin, James Mark. 1913:5. History of Psychology A Sketch and an Interpretation Volume 2. London: Watt & CO. Gambar disajikan oleh Levri Ardiansyah (2017).

Meski Locke menyadari bahwa untuk menentukan *the origin of ideas* haruslah berdasarkan pada adanya fakta berupa benda fisik, namun Locke tidak bersikukuh menegaskan bahwa ide merupakan *thing,* karena Locke sadar eksperimen dan observasi yang dilakukannya hanya dapat membuktikan *sensation and reflection* saja yang merupakan *thing.* Bagaimanapun, keterkaitan erat *the origin* terhadap fakta memaksa ilmuwan untuk merumuskan *question of fact* berupa kalimat tanya '*What is*' yang dalam konteks ini adalah '*What is idea?*'. Locke tentu paham bahwa '*Question of fact are not to be settled by reasoning, but by observation*' (Serbati, Antonio Rosmini, 1883: 20). Buktinya Locke melakukan *inductive proof* dengan melakukan eksperimen dan observasi, bukan hanya mengedepankan segenap argumen dan alasan semata. Merunut pemikiran pemikiran Locke yang terbaca pada buku karya Baldwin, James Mark (1913:3) berjudul '*History of Psychology A Sketch and an Interpretation Volume 2*', Locke akhirnya mendefinisikan ide sebagai *'object of the understanding when it thinks'*. Dengan begini, *the origin of ideas* tidak berlandaskan pada *thing* yang berbasis fakta, melainkan ide yang merupakan *object* yang terdiri dari *sensation* dan *reflection* berupa *things.* Oleh karenanya, *systematic exlussion* yang dilakukan Locke tentang *the origin of ideas* bukanlah merupakan fakta melainkan *a principle.* Hal ini berarti, Locke memulainya dengan *assumption of principles,* lalu mencoba membuktikannya hingga dapat menjelaskan ide sebagai fakta (*Locke begins by an assumption of principles and thence proceeds to explain facts*).

ARTICLE III.

Without the idea of substance the development of our intellectual life would be impossible.

51. Now, if Locke, instead of examining whether the idea of substance does exist, had directed his attention to the question whether it *can* exist, he would very soon have become convinced that its necessity is such that it *cannot but* exist.

[1] This systematic exclusion is not a fact, but a principle. Therefore have I said that Locke begins by an assumption of principles and thence proceeds to explain facts. To say, 'In accounting for the origin of ideas we must start from sensation and reflection only,' is to lay down an arbitrary law by which certain facts shall be admitted, while others are repudiated.

Sumber: Serbati, Antonio Rosmini. 1883: 21. The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Hasilnya, Locke menyimpulkan bahwa '*The idea of substance does not exist because it cannot exist. And it cannot exist because it is not derived from sensation and reflection*'. Bagi saya, Locke telah berhasil menunjukan bahwa pada sesuatu yang tak berujud fisik (*object*) dapat terbukti terdiri dari benda fisik (*thing*). Sama halnya dengan administrasi yang kini dipandang bukan merupakan benda berujud fisik, dapat juga dibuktikan adanya fakta berupa benda berujud fisik pada administrasi.

Sulitnya menemukan *the origin of idea,* telah pernah dikemukakan Plato bahwa '*... the whole difficulty of assigning to ideas their true origin consisted ultimately in explaining how there could be in us a faculty capable of producing them, since this faculty would be impossible if our reason were devoid of ideas*'. Pada buku karya Serbati, Antonio Rosmini (1883: 193) berjudul '*The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak:

227. Of this defect in the argument of Plato, I shall yet have to speak more at length. What I now wish to insist on is the fact that, Plato saw perfectly well that the whole difficulty of assigning to ideas their true origin consisted ultimately in explaining how there could be in us a faculty capable of producing them, since this faculty would be impossible if our reason were devoid of ideas.

Sumber: Serbati, Antonio Rosmini. 1883: 193. The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Tujuan Penelusuran *The Origin of Administration*
The Truth of Administration

Analisis yang saya lakukan dapat saja menuntun pada ditemukannya *the truth of administration* berdasarkan investigasi melalui penelitian ilmiah, atau kebenaran baru dapat diketahui setelah adanya *new truths connected with a fact of administration which already known,* atau bisa saja kebenaran terungkap dari pemikiran yang telah ada namun tak disadari kontribusinya terhadap kebenaran ilmiah adanya fakta Ilmu Administrasi. Pada buku karya Serbati, Antonio Rosmini (1883: 198) berjudul '*The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak:

By analysing still more closely the observation of the Athenian philosopher, we may divide the inquiries that may be instituted about it into three classes. (1) Sometimes we investigate and cognise truths taken, so to speak, at haphazard—that is, just as the occasion for making use of our reasoning powers is given us; (2) sometimes we seek after new truths connected with a thing which is already known to us under another aspect; and (3) sometimes we do the same in regard to truths already included in some idea, but on which we have not reflected, and consequently have not perceived them distinctly, and each by itself.

Sumber: Serbati, Antonio Rosmini. 1883: 198. The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Primary and Derived Truth
Merunut pemikiran pemikiran Aristotle, '*The origin of derived truths, ... by means of demonstration or deduction from the primary ones*'. Pada buku karya Serbati, Antonio Rosmini (1883: 204) berjudul '*The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak:

ARTICLE VII.

Aristotle does not seem to give an adequate explanation of universals.

234. On the subject of universals Aristotle leaves a void, or at least is obscure.

He fully grasped the distinction between primary and derived truths, and seems also to have reached so far as to reduce all primary truths to one only—the principle of contradiction.[1]

He accounts for the origin of derived truths, as I have said before, by means of *demonstration*, or deduction from the primary ones, and proves against Plato that derived truths are not innate in us.

Sumber: Serbati, Antonio Rosmini. 1883: 204. The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

By demonstation berarti deduksi suatu kebenaran dari kebenaran lain (*By demonstration is meant the deduction of one truth from another already admitted as indubitable*) seperti tercetak pada buku karya Serbati, Antonio Rosmini (1883: 2045 berjudul '*The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co).

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Nama Administrasi

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Pada bahasa *Greeks* atau *Ellines,* terdapat kata '*Minister*'.

Bahasa *Greeks* merupakan bahasa daerah (*an ethnic group who identify based on similar language, ancestry, culture or nation*) masyarakat Greece (Hellenic Republic atau ***Ellinikí Dimokratía***), Cyprus, *Southern* Albania, Italy, Turkey, Egypt dan bangsa lainnya diseputar *Mediterranean Sea*. Bangsa Indonesia melafalkan *Greece* sebagai Yunani dan *Egypt* sebagai Mesir.

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Kata ‘*Administration’* berdasarkan Etimologi

Voltaire mendefinisikan *etymology* sebagai ilmu tentang huruf vokal dan konsonan yakni vokal yang sama sekali tidak berarti dengan konsonan yang sangat sedikit (*etymology as a science in which vowels signify nothing at all, and consonants very little*). Pada buku karya Muller, Max (1864: 238) berjudul ‘*Lectures on the Science of Language Delivered at the Royal Institution of Great Britain in February, March, April & May, 1863. Second Series’* (London: Longman, Green, Longman, Roberts & Green) tercetak:

LECTURE VI.

ON THE PRINCIPLES OF ETYMOLOGY.

VOLTAIRE defined etymology as a science in which vowels signify nothing at all, and consonants very little. ‘*L’étymologie*,’ he said, ‘*est une science où les voyelles ne font rien, et les consonnes fort peu de chose.*’ Nor was this sarcasm quite undeserved by those who wrote on etymology in Voltaire’s time, and we need not wonder that a man so reluctant to believe in any miracles should have declined to believe in the miracles of etymology. Of course, not even Voltaire was so great a sceptic as to maintain that the words of our modern languages have no etymology, i.e. no origin, at all. Words do not spring into life by an act of spontaneous generation, and the words of modern languages in particular are in many cases so much like the words of ancient languages that no doubt is possible as to their real origin and derivation. Wherever there was a certain similarity

Sumber: Muller, Max. 1864: 238. Lectures on the Science of Language Delivered at the Royal Institution of Great Britain in February, March, April & May, 1863. Second Series. London: Longman, Green, Longman, Roberts & Green. Gambar disajikan oleh Levri Ardiansyah (2017).

Meski begini, *etymology* berkembang melalui penelusuran jejak kata sejak jaman dulu kala hingga jaman modern untuk mengungkap perubahan bertahap dari bentuk kata, makna maupun pengertiannya hingga dapat diketahui ‘*the original form and meaning of most of the words*’ maupun derivasinya, baik berupa *addition, subtraction, transposition* dan *inversion of letters*. Dengan begini, *etymology* merupakan ‘*science in which identity or even similarity, whether of sound or meaning is of no importance whatever*’ sehingga dapat dinyatakan bahwa ‘*One word is derived from another*’ (disarikan dari Muller, Max, 1864: 238 - 243). Merunut pemikiran tulisan Muller, Max (1864: 282) terbaca definisi *etymology* yakni ‘*Etymology is the knowledge of the changes of words, and so far from expecting identity, or even similarity of sound in the outward appearance of a word*’.

Kata '*Minister*' berdasarkan Etimologi

Pada buku karya Klein, Ernest (1966: 984) berjudul '*A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume II'* (Amsterdam London New York: Elsevier Publishing Company) terbaca bahwa kata '*minister*' digunakan masyarakat *British* pada pada situasi sosial politik sekira tahun 1883 yakni *Middle England* (ME) yang tercetak '*menistre, ministre*'. Kata '*menistre* maupun *ministre*' ini berasal dari Bahasa *Old French* yakni '*Menistre*' dan dari Bahasa Latin yakni '*minister*' bentukan kata dari '*minis-teros*' atau '*minus-teros*'. Kutipannya tergambar seperti ini:

minister, n. — ME. *menistre, ministre,* fr. OF. *menistre* (F. *ministre*), fr. L. *minister,* 'a servant', for **minis-teros,* fr. earlier **minus-teros,* formed with comparative suff. from *minor, minus,* 'smaller, less'; see **minimum**; *i* for *u* in the second syllable of the L. word *minister* is due to the influence of its antonyme *magister,* 'master'. Cp. **minstrel.** For the compar. suff. see **-ther.**

minister, intr. and tr. v. — ME. *ministren,* fr. OF. *ministrer,* fr. L. *ministrāre,* 'to serve'. See **minister,** n., and cp. **minestrone.**

Derivatives: *ministr-er,* n., *ministr-ess,* n.

ministerial, adj. — F. *ministériel,* fr. Late L. *ministeriālis,* 'pertaining to service', fr. L. *ministerium.* See **ministry.**

Derivatives: *ministerial-ist,* n., *ministerial-ity,* n., *ministerial-ly,* adv., *ministerial-ness,* n.

ministerium, n. — L. See **ministry.**

ministrant, adj. and n. — L. *ministrāns,* gen. *-antis,* pres. part of *ministrāre.* See **minister,** v., and suff. **-ant.**

ministration, n. — ME. *ministracioun,* fr. L. *ministrātiō,* gen. *-ōnis,* 'service, assistance', fr. *ministrātus,* pp. of *ministrāre.* See **minister,** v., and **-ation.**

ministrative, adj. — Formed with suff. **-ive** fr. L. *ministrātus,* pp. of *ministrāre.* See **minister,** v.

ministrator, n. — L. *ministrātor,* 'an attendant, servant', fr. *ministrātus,* pp. of *ministrāre.* See **minister,** v., and agential suff. **-or.**

ministry, n. — ME. *mynysterie,* fr. L. *ministerium,* 'service, attendance, ministry', fr. *minister.* See **minister,** n., and **-y** (representing L. *-ium*) and cp. **métier** and **mystery,** 'trade', which are doublets of *ministry.*

Sumber: Klein, Ernest. 1966: 984. A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume II. Amsterdam London New York: Elsevier Publishing Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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Berdasarkan etimologi, kata '*minister*' berarti '*a small man*' yang sering digunakan sebagai lawan kata '*magister*' yang berarti '*a big man*'. Kata '*minister*' berkaitan dengan kata '*minus'* maupun '*less*' sedangkan kata '*magister*' berkaitan dengan kata '*magis*'. Pada perkembangannya, kata '*minister*' dipahami sebagai pembantu (*a servant*) termasuk pembantu raja adalah seorang '*minister*'. Dengan begini, masyarakat *French* menempatkan kata '*minister*' sebagai profesi, misalnya kata '*ministrel*' yang berarti profesi sebagai artis, penyanyi maupun sastrawan. Dari kata '*minister*' ini, masyarakat yang berbahasa Latin memahaminya sebagai '*ministerium*' yakni pelayanan (*service*) tepatnya pelayanan bidang keagamaan (*religious ministry or service*) karena masyarakat yang berbahasa Latin memahami '*ministerium*' terkait erat dengan kata '*mystery*'. Pada buku karya Muller, Max (1864: 254) berjudul '*Lectures on the Science of Language Delivered at the Royal Institution of Great Britain in*

February, March, April & May, 1863. Second Series' (London: Longman, Green, Longman, Roberts & Green) tercetak:

Minister meant, etymologically, a small man; and it was used in opposition to *magister*, a big man. *Minister* is connected with *minus*, less; *magister* with *magis*, more. Hence *minı́ster*, a servant, a servant of the Crown, a minister. From *minister* came the Latin *ministerium*, service; in French contracted into *métier*, a profession. A *minstrel* was originally a professional artist, and more particularly a singer or poet. Even in the *Mystery Plays*, the theatrical representations of portions of the Old or New Testament story, such as still continue to be performed at Ammergau in Bavaria, *mystery* is a corruption of *ministerium*; it meant a religious ministry or service, and had nothing to do with mystery. It ought to be spelt with an *i*, therefore, and not with a *y*.

Sumber: Muller, Max. 1864: 254. Lectures on the Science of Language Delivered at the Royal Institution of Great Britain in February, March, April & May, 1863. Second Series. London: Longman, Green, Longman, Roberts & Green. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran pada buku karya Muller, Max (1864: 253) ini, dapat saya simpulkan bahwa secara etimologis kata '*minister*' berasal dari bahasa *French* dan diadopsi oleh masyarakat berbahasa Latin menjadi '*ministerium*'. Pada '*Online Etymology*' terbaca bahwa kata '*minister*' berasal dari bahasa *Old French* yakni '*Menistre*'.

Menistre

Pada buku karya Sainte-Palaye, M. de La Curne de (Jean-Baptiste de La Curne); Favre, Léopold; Pajot, Léon; & Mouchet, Georges-Jean (1880: 331) berjudul '*Dictionnaire Historique de L'Ancien Langage Francois ou Glossaire de la Langue Francoise Depuis son Origine Jusqu'au Siecle de Louis XIV'* (Paris: Tous Droit Reserves, H. Champion, Libraire) tercetak '*Menistre. (1) Administrateur ... (2) Official ... (3) Revenus de l'officialite*'. Kutipannya seperti ini:

Menistre. [1° Administrateur : « Et avec le roy n'avoit que le roy de Sezile et le mareschal de France, le *menistre* de la Trinitei et moy. » (Joinville, § 380.)] — 2° Official, nommé *mistral* au midi : « Les archevesques de Tours..., leurs officiers familiers et *menistres*. » (Ord. des R. de Fr. t. V, p. 516.) — 3° Revenus de l'officialité : « Lesquelles... trente septiers de fourment et somme de dix livres, le dit sieur assiet et assigne sur les rentes et revenus de la *menistre*. » (Mém. de Commines, t. III, Preuves, p. 227.)

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« viconte du lieu requerir les *menicles* pour le amenicler. » (JJ. 125, p. 120, an. 1384.)]

Meniées, *s*. Nom collectif, domestiques : « Nous lessons à nos *meniées* qui nous ont servi et nous serviront en tans de nostre mort, et à ceux meimes qui mors seroient, se nous ne leur avions fet soufisant guerredon de leur service, deux mille livres tournois. » (Testam. du duc d'Alençon, à la suite de Joinville, p. 182.)

Menjer, Menjier, Menjuer. [1° Manger : « En dormant lui sembloit que une ourse sauvage lui *menjoit* le bras dextre. » (Berte, c. LXX.) — « Les prouvains nouveaux et autres seps que *menjuent*, rompent et desgatent les dites bestes. » (Ord. t. V, p. 529.)

Miex vault le cheval Bertran
Qui souvent *menjue* avaine
Que cil qui fait la crevaine. *(Vatic. 1522, f. 153.)*

Ha sire, je *menjus* goute ;
Aler ne puis par maladie. *(Desch. f. 333.)*

Car il se *menjussent* et boivent
Chascun jour en proufit commun. *(Id. f. 416.)*

2° Le participe présent a le sens de mangeur, garnisaire : « L'en ne doit pas les biens apeticier par gardes ne par *menjans* ; mais... fere les cous si petits comme l'en pourra. » (Beaum., p. 285.)

Menier. Comparez *manier*, habile des doigts : « Moult avez ces doiz *meniers*. » (Cortois d'Artois, f. 84.) — 2° Habile de la langue : « Il avoit la langue *meniere* à bien parler et sagement. » (Fauch. des Origines, liv. I, p. 85.)

Meniere. Manière :

Si tost com vous aurez trouvées
Les *menieres* dont les fumées
Seront changiées. *(Ms. 7615, II, f. 168.)*

Menin, *s*. Menin, nom venu d'Espagne. En 1680, on donna ce nom à six gentilshommes de la cour nommés, avec 600 livres de pension, pour être assidus auprès de M. le dauphin. (Lett. de Mme de Sévigné, t. V, p. 19.)

Menistre. [1° Administrateur : « Et avec le roy n'avoit que le roy de Sezile et le mareschal de France, le *menistre* de la Trinitei et moy. » (Joinville, § 380.)] — 2° Official, nommé *mistral* au midi : « Les archevesques de Tours..., leurs officiers familiers et *menistres*. » (Ord. des R. de Fr. t. V, p. 516.) — 3° Revenus de l'officialité : « Lesquelles... trente septiers de fourment et somme de dix livres, le dit sieur assiet et assigne sur les rentes et revenus de la *menistre*. » (Mém. de Commines, t. III, Preuves, p. 227.)

Meniée. Mêlée, combat :

Pris i fu li rois de Gaybe,
Et ocis li rois de Hongrie
. . . . la *menlée*
Si dura jusqu'à la vesprée. *(Mouskes, p. 134.)*

Departi il, sans nule doute,
A ses enfans sa tiere toute,
Qu'apriès sa mort n'en fust estris,
Ne *menlée*, noisse, ne cris. *(Id. p. 318.)*

Menniere. [Manière : « Car je n'ay vouloir ne *menniere* Que je face vostre priere. » (Chast. de Coucy, v. 275.)]

Mennouvrage. Labour, dans Beaumanoir, ch. 29, p. 68.]

Menoie. Pouvoir, discrétion, comme *menaie* :

Ma doce dame, à vos me rent,
Tot à vostre comandement,
Suis mis en la vostre *menoie*
Dame, garissez moi la plaie
Que j'ai dedens le cors si grant. *(Fabl. de S. G. f. 246.)*

Menoier, *v*. Manier :

Et le quart li va raprochant
Au plus bel qu'il set *menoier*. *(MS. 7615, II, f. 134.)*

Menoir. Demeurer, habiter :

Un riches hom molt renomez,
Menoit assèz près de l'ormez. *(Fabl. de S. G. p. 150.)*

. . . . . *Menoient* tote sa gent
Ça dui, çà .III. esparsement. *(Parton. f. 125.)*

L'infinitif a le sens de manoir :

. . . . . Par mauvais oir
Decheent vile et *menoir*. *(Ms. 7615, II, f. 169.)*

Menois. Matin :

. . . . Le danzel
N'est esveilliéz jusqu'à *menois*. *(Parton. f. 131.)*

Menoison, Menisoun. [Dyssenterie, dévoiement ; dans un *lapidaire*, *ms*., ch. des *émathystes*, on lit : « Ele oste morte char de plaie, et estanche *menisoun*. » — « Si li en avint ainsi, que par la *menoison* qu'il avoit, que il li couvint le soir couper le font de ses braies. » (Joinville, § 10.) — « Li roys qui avoit la maladie de l'ost et *menoison* moult fort. » (Id. § 306.) — Lacurne cite ici l'Essai sur l'Histoire de la médecine en France de Chomel, 1762, in-12, p. 243] : « Lors de la première croisade, S. Louis fut attaqué du scorbut, ainsi que la plus grande partie de son armée. Les dents lui lochoient ; sa peau etoit couverte de taches, il avoit le flux de ventre dysenterique très fort et etoit si maigre que les os de l'epine du dos sembloient pointus. Il etoit si foible qu'il falloit qu'un de ses officiers le porta à touttes ses necessités. » — Joinville, témoin oculaire, en parlant du scorbut dont il fut aussi attaqué : « nous vint, dit-il, la maladie de l'ost, qui etoit telle que la chair de nos jambes sechoit et etoit tavelée de noir et de terre, et à nous qui avions telle maladie venoit chair pourie aux gencives, et nul n'echappoit. Le signe de la mort etoit telle que là où le nez saignoit, il falloit mourir. » — Je n'ai jamais vu de scorbutique guérir d'une violente hémorrhagie, dit M. Chomel. Un peu plus bas, le même historien rapporte que « tant de chair morte venoit aux gencives à notre gent, que il falloit que barbiers otassent la chair morte pour qu'ils pussent mâcher et avaler aval. Grand pitié etoit d'ouir les gens breaire à qui l'on coupoit la chair morte et breoient comme femmes en travail d'enfant. » — C'est donc mal à propos que plusieurs médecins croient le scorbut une maladie nouvelle, connue seulement depuis trois siècles, et une maladie endémique particulière aux habitants

Sumber: Favre, L. 1880: 331. Dictionnaire Historique de L'Ancien Langage Francois ou Glossaire de la Langue Francoise Depuis son Origine Jusqu'au Siecle de Louis XIV. Paris: Tous Droit Reserves, H. Champion, Libraire. Gambar disajikan oleh Levri Ardiansyah (2017).

Menistre yang berarti *administrateur* digunakan pada konteks berkautan dengan raja, khususnya *le mareschal de France* yang merupakan *le menistre de la Trinitei.*

Menistre juga berarti pendapatan resmi *(revenus de l'officialite*) dan juga berarti pejabat (*official*).

Saat ini *menistre* merupakan Menteri Keuangan atau Kepala Staf Angkatan Laut.

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Pada buku karya Putnam, George P (1853: 413 & 414) berjudul '*Hand-book of Chronology and History. The World's Progress, a Dictionary of Dates: with Tabular Views of General History and Historical Chart. Sixth Edition'* (New York: George P. Putnam) tercetak pengertian *mareschal* sebagai bangsawan yakni '*... the ancient esquires of the king*'. Kutipannya tergambar seperti ini:

MARESCHAL, OR MARSHAL. In France, marshals were the ancient esquires of the king; and by their first institution they had the command of the vanguard, to observe the enemy, and to choose proper places for its encampment. Till the time of Francis I., in A. D. 1515, there were but two French marshals, who had 500 livres *per annum* in war, but no stipend in time of peace. The rank afterwards became of the highest military importance, the number was without limit, and the command supreme. During the empire of Napoleon, the marshals of France filled the world with their renown. See *Marshal, Field.*

MARSHALS, FIELD, in the British army. The rank is of modern date, and was preceded by that of captain-general, and that also of commander-in-chief. The duke of Marlborough was captain-general, 1702. The first military chiefs bearing the rank of marshal were those of France. George II. first conferred the rank upon John, duke of Argyle, and George, earl of Orkney in 1736. See *Mareschal.*

Sumber: Putnam, George P. 1853: 413 & 414. Hand-book of Chronology and History. The World's Progress, a Dictionary of Dates: with Tabular Views of General History and Historical Chart. Sixth Edition. New York: George P. Putnam. Gambar disajikan oleh Levri Ardiansyah (2017).

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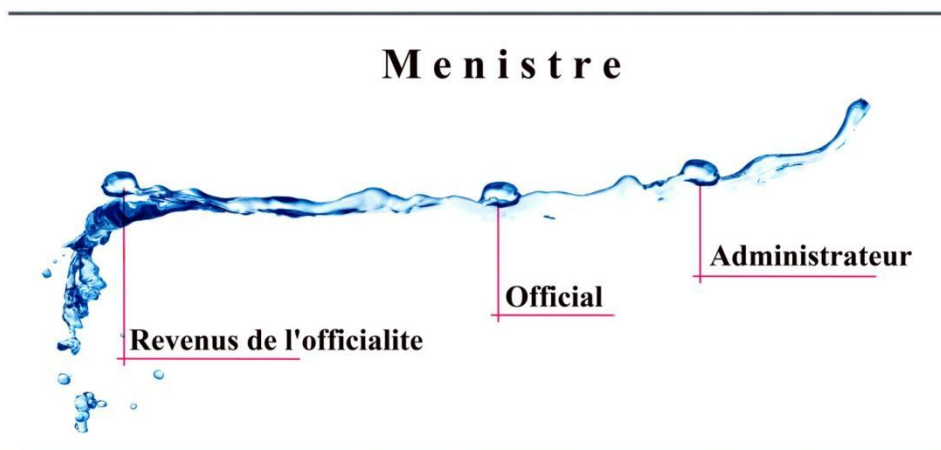
Sumber: Karya ilustrasi Levri Ardiansyah (2017) mengutip cetakan pada buku karya Favre, L. 1880: 331. Dictionnaire Historique de L'Ancien Langage Francois ou Glossaire de la Langue Francoise Depuis son Origine Jusqu'au Siecle de Louis XIV. Paris: Tous Droit Reserves, H. Champion, Libraire.

contoh *menistre*

Pada buku karya Felibrige (1872: 31 & 32) berjudul '*Armana Prouvencau Per L'an de Dieu 1872 Adouba e Publica de La Man di Felibre Joio, soûlas e passo-tèms de tout lou pople dôu Miejour*' (Carriero de Sant-Agricu: En Avignoun Enco de Roumanille, Libraire-Editour) tercetak '*Louis Felip lou noumo Menistre de l'Interiour*', '*Piei, Minister dou Coumerci e di Travai*' dan '*Thier, estent Menistre dis Afaire estrangie*'. Kutipan tergambar seperti ini:

Tambèn, li tres journado de 1830 lou boutèron sus lou pinacle. D'abord, la vilo d'Ais l'elegis deputa ; e dous an après, lou rèi Louis-Felip lou noumo Menistre de l'Interiour. Es en aquelo epoco (1832) que, pèr pacifica la Vandèo tresananto, fai arresta dins Nanto la Duquesso de Berri, e que, pèr ajuda la Belgico sóulevado, mando uno armado prendre la ciéutadello d'Anvers. Pièi, Menistre dóu

— 32 —

Coumèrci e di Travai publi (1833), douno lou vanc is art, à l'endustrio e is afaire ; s'óucupo di canau, di routo, di mounumen, e fai renaisse en Franço la prousperita publico.

Aqui coumenço sa lucho emé l'ouratour Guizot, un autre ome dóu Miejour : Thiers representant lou cèntre gauche, Guizot lou cèntre dre, se disputon éli dous li reno dóu gouvèr, e à-de-rèng presidon li counsèu dóu rèi Felip. Es en 1840 que Thiers, estènt Menistre dis Afaire estrangié, faguè coustruire riboun-ribagno li fourtificacioun de la vilo de Paris, pèr respondre i menaço de l'Europo coualisado. Se retiro à la fin davans Guizot, e emplego si lesi à escriéure sa grando *Histoire du Consulat et de l'Empire*. Mai lou repaus noun estènt fa pèr aquel esperit boulegui éu, tourno mai à la Chambro, e pèr si discours apassiouna countribuïs encaro à debaussa lou trone qu'éu-meme avié auboura.

Sumber: Felibrige. 1872: 31 & 32. Armana Prouvencau Per L'an de Dieu 1872 Adouba e Publica de La Man di Felibre Joio, soûlas e passo-tèms de tout lou pople dôu Miejour. Carriero de Sant-Agricu: En Avignoun Enco de Roumanille, Libraire-Editour. Gambar disajikan oleh Levri Ardiansyah (2017).

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Ministier adalah pelayanan (*service*), khususnya berkenaan dengan pelayanan kerasulan / keagamaan (*dans un commentaire des acies des apotres*)

Ministral merupakan petugas pengadilan kota (*officier de justice ou de ville*)

Ministrateur adalah pelaksana kehendak Tuhan (*executeur de la volonie divine*) yakni *administrateur*

Ministre berarti:
(1) pelayan (*serviteur*) yang memiliki jiwa menghamba kepada hukum dengan cara merendahkan diri dan menjaga mulut agar tidak terkena hukuman neraka (*la moie ame qui vers loi s'humulie garde de la bouche de enfer et des enfernaus ministres*);
(2) juru tulis (*clerc paroissial*);
(3) pegawai kantor (*nos officiers ou ministres*);
(4) petugas pengadilan (*un officier particulier d'une juridiction*); bahkan juga berarti
(5) menteri khususnya menteri terkait keadilan maupun peradilan (*ministres de la joustice*)

Minister berarti:
(1) gubernur administratif (*administrer, gouverner*);

(2) Di lingkungan gereja, pendeta yang memimpin disapa sebagai '*Ministra*' (*on lit sagement ministra en parlant d'un pape qui gouverne l'eglise avec sagesse*);
(3) melayani (*servir*) orang-orang tertentu maupun melayani masyarakat (*servir la messe*)

Ministresse yakni istri menter (*femme de ministre*) dan *ministrillon* yakni anak menteri (*une nichee de petit ministrillon en parlant des enfants qu'avoient les ministres*)

Pada buku karya Sainte-Palaye, M. de La Curne de (Jean-Baptiste de La Curne); Favre, Léopold; Pajot, Léon; & Mouchet, Georges-Jean (1880: 386) berjudul '*Dictionnaire Historique de L'Ancien Langage Francois ou Glossaire de la Langue Francoise Depuis son Origine Jusqu'au Siecle de Louis XIV'* (Paris: Tous Droit Reserves, H. Champion, Libraire) tercetak kata '*Ministeriat, ministier, ministral, ministrateur, ministre, ministreau, ministrer, ministrerie, ministresse, ministrez,* dan *ministrillion'*. Kutipannya seperti ini:

« qualité de l'Eglise. » — 5° Couleur sombre, comme l'habit des minimes ; brun marron :

Que mes aigrettes on me baille
Minimes, et le voile bleu. *(La Colomb. Th. d'honn. 359.)*

« *Minime* en laine, » drap couleur de minime. (Oudin.)

Ministeriat. Fonction de ministre : « Messieurs « les cardinaux de Richelieu et Mazarin.... avoient « confondu le *ministeriat* dans la pourpre. » (Mém. du card. de Retz, III, liv. IV, p. 114.) — « *Ministeriat* des estats, » dignité de ministre d'Etat. (Le Labour. Hist. de Charles VI, p. 8.)

Ministier. [Service, dans un commentaire des actes des apôtres, ch. VI, v. 1 : « La cause de cest « murmurement peut estre entendue double ; ou « car celes (veuves des Grecs) n'estoient receues « au *menestier* ; ou car eles estoient grevées plus « que li autre au cotidian *menestier*. » (Ms. S. Vict. 28, fol. 11.)]

Ministral, *s. m.* Officier de justice ou de ville, dans la Valteline et à Neufchatel : « Les quatre « *ministraux*, conseil ou communauté de la ville « et communauté de Neufchatel en Suisse. » (Beauchamps, Rech. des Théât. II, p. 166.)

Ministrateur. Administrateur : « Les roys et « princes *ministrateurs*, et executeurs de la « volonté divine. » (Ordonn. des ducs de Bretagne, folio 363.)

Ministre. 1° Serviteur : « Le manger fust « aorné par les *ministres*. » (Percef. V, fol. 70.) — [« La moie ame qui vers toi s'humilie, garde de la « bouche d'enfer et des enfernaus *ministres*. » (Psaut. du XIII° s. f. 29.) — 2° Ministres de l'Eglise : « Ainsi ont no *ministre* cest ordre devisé. » (Berte, c. XLV.) — « Prions pour trestous les *ministres* « Qui ont en eglise baillie. » (Archiv. des missions scient. II° sér. III, 299.)] — Les curés étoient dénommés de même : « Clerc paroissial, *ministre*, mar- « guilliers. » (N. C. G. II, p. 972.) — Au Cout. Gén. t. II, page 900, on lit « *ministre* ou curé. » — C'est encore le nom de ceux qui endoctrinent les protestants : « Le roy Henry ne trouva bon qu'il eust « mené (le roy Antoine de Navarre) ce *ministre*, « qui ne portoit pourtant le titre de *ministre*, mais « de prescheur du roy et de la reyne de Navarre, et « par ce tiltre, il n'estoit si odieux que par celuy de « *ministre*. » (Brantôme, Cap. fr. t. III, p. 237.) — 3° Officiers du roi : « Nos officiers ou *ministres*. » (Ord. t. V, 636.) — « *Ministres* de la joustice. » (Id. t. I, 468.) — Quelquefois on appeloit *ministre*, un officier particulier d'une juridiction, comme du Châtelet de Paris. (Ordonn. I, p. 466.) — 4° Pupille. Une vieille dame au service d'une jeune princesse, est appelée sa maîtresse : « Ceste maistresse....... « quant elle voit sa *ministre* ainsi plaindre, si luy « demande qu'elle a. » (Lanc. du Lac, II, f. 30.)

Ministreau, *s. m.* On a appelé *ministreaux*, par mépris, Servien, Hugues de Lyonne et Le Tellier, sous-ministres du cardinal Mazarin, et qui le favorisoient sous main pendant sa retraite. (Mém. du card. de Retz, t. II, liv. III, p. 299.)

Ministrer. 1° Administrer, gouverner. On lit « sagement *ministra*, » en parlant d'un pape qui gouverne l'église avec sagesse. (Chron. de S. Denis, t. II, fol. 111.)

Ministrer et avoir la cure
De lour famille. *(Desch. f. 539.)*

2° Servir : « Lui *ministrast* et bailla de sa main à « boyre, et manger. » (L'Amant ressusc., p. 60.) — Après la tentation de J. C., « les anges viennent et « le adorent, et le *ministrent*. » (Histoire du Théât. fr. I, p. 214.) — « Je *ministre* à son sacré oracle. » (Rabelais, t. V, p. 209.) — 3° Servir la messe : « Le « jour de S. Pierre et S. Paul...... le cardinal de « S^t Severin, a *ministré* le pape ou dit office. » (Lett. de Louis XII, t. IV, p. 172.)

Ministrerie (à la). A la façon, à la mode des ministres protestants : « Lire *à la ministrerie*. » (Des Perr. Contes II, p. 90.)

Ministresse, *s.* Femme de ministre. (Cotgr.)

Ministrez. Ménestrels, dans D. C., sous *Miles* : « Les *ministrez* toujours devant, faisans leurs « melodies. »

Ministrillon. « Une nichée de petits *ministril-* « *lons*, » en parlant des enfants qu'avoient les ministres huguenots. (Garasse, Rech. des Rech. page 977.)

Minois. [Mine, visage : « Ceste garsette criera, « Se cuide je, mais toutes fois La prendray : elle a « beau *minois*. » (La vengance nostre S. J. C. dans le Dict. d'argot de Fr. Michel.)] — « Vous portez le « *minois* non mye d'un achapteur de moutons, « mais bien d'ung coupeur de bourses. » (Rabelais, Pantagr. IV, 22.) — Il était aussi employé comme adjectif : « Marchant en gravité comme M^r le chan- « tre de Paris aux bonnes et nobles festes, ayant « toussé, et s'estant monocordié sur son geste pre- « paré en pompe *minoise*, après avoir remué sa « troigne scientifique. » (Moyen de parven. p. 166.)

Minoiser, *v.* Observer la mine : « Je les specu- « leray, d'autant que je trouve, en les *minoisant* « intelligiblement, une grande, creuse, et profonde « sapience. (Moyen de parvenir, p. 200.)

1. Minon, *s.* Diminutif de mine : « Pierres, « mines, *minons*, marles, charbons. » (N. C. G. t. II, p. 124.)

2. Minon. *s.* Chat, petit chat. « *Minon, minon,* » cri pour appeler un chat. L'on s'en sert pour refuser à une personne quelque chose qu'elle nous demande. (Oudin.) — « Attrapeur de *minons*, » qui trompe les trompeurs. (Oudin.) — « Attraper, ou « prendre les *minons*, » tromper les trompeurs : « Si un coupeur de bourse venoit à desrober un « avocat, il n'y auroit pas seulement de la moque- « rie et risée en ce que les *minons seroient pris*, « mais ce seroit un assuré présage de quelque « grand et prestigieux malheur, *juxta illud* qu'il « fait fort mauvais temps lorsque les loups s'entre-

Sumber: Favre, L. 1880: 386. Dictionnaire Historique de L'Ancien Langage Francois ou Glossaire de la Langue Francoise Depuis son Origine Jusqu'au Siecle de Louis XIV. Paris: Tous Droit Reserves, H. Champion, Libraire. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pengertian '*Gouverner*' secara Etimologis

Pada buku karya Muller, Max (1864: 253 & 254) berjudul '*Lectures on the Science of Language Delivered at the Royal Institution of Great Britain in February, March, April & May, 1863. Second Series'* (London: Longman, Green, Longman, Roberts & Green) tercetak:

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While names such as *palace* and *court*, and many others, point back to an early pastoral state of society, and could have arisen only among shepherds and husbandmen, there are other words which we still use, and which originally could have arisen only in a seafaring community. Thus *government*, or *to govern*, is derived from the Latin *gubernare*. This *gubernare* is a foreign word in Latin; that is to say, it was borrowed by the Romans from the Greeks, who at a very early time had sailed westward, discovered Italy, and founded colonies there, just as in later times the nations of Europe sailed farther west, discovered America, and planted new colonies there. The Greek word which in Italy was changed into *gubernare* was *kubernân*, and it meant originally to handle the rudder, or to steer. It was then transferred to the person or persons entrusted with the direction of public affairs, and at last came to mean to rule.

Sumber: Muller, Max. 1864: 253 & 254. Lectures on the Science of Language Delivered at the Royal Institution of Great Britain in February, March, April & May, 1863. Second Series. London: Longman, Green, Longman, Roberts & Green. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Klein, Ernest (1966: 984) berjudul '*A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume I. A-K'* (Amsterdam London New York: Elsevier Publishing Company) tercetak:

administer, tr. v. — OF. *aministrer*, fr. L. *administrāre*, 'to manage, carry out, attend, serve', fr. **ad-** and *ministrāre*, 'to serve'. See **minister,** v. The insertion of the letter *d* in F. *administrer* and in E. *administer* is due to the influence of L. *administrāre*.
Derivative: *administer-ial*, adj.

administrant, adj. and n. — F., pres. part. of *administrer*, fr. L. *administrāre*. See prec. word and **-ant.**

administrate, tr. v., to administer. — L. *administrātus*, pp. of *administrāre*. See **administer** and verbal suff. **-ate.**
Derivatives: *administration* (q.v.), *administration-al*, adj., *administrative* (q.v.), *administrator* (q.v.)

administration, n. — L. *administrātiō*, gen. *-ōnis*, fr. *administrātus*, pp. of *administrāre*. See prec. word and **-ion.**
Derivative: *administration-al*, adj.

administrative, adj. — L. *administrātivus*, fr. *administrātus*, pp. of *administrāre*. See **administrate** and **-ive.**
Derivative: *administrative-ly*, adv.

administrator, n. — L., fr. *administrātus*, pp. of *administrāre*. See **administrate** and agential suff. **-or.**

administratrix, n., a female administrator. — ModL., fr. L. *administrātor*. See prec. word and **-trix.**

admirable, adj. — F., fr. L. *admīrābilis*, fr. *admīrārī*, 'to admire'. See **admire** and **-able** and cp. **Mirabel.**
Derivatives: *admirable*, n., *admirabl-y*, adv.

admiral, n. — OF. *amiral*, *amiralt* (F. *amiral*), prob. shortened fr. Arab. *amīr-ar-raḥl*, 'commander of transport, officer commanding a (transport) fleet', whence also Port. *amiralhs*, *amirat*, It. *ammiraglio* (It. *almiraglio* and It., Sp. and Port. *almirante* arose from a confusion of *am-*, the beginning of the word *amīr*, with the Arab. art. *al-*; It., Sp. and Port. *almirante* were transformed after the pres. part. suff. *-ante*, fr. L. *-antem*; see *-ant*); influenced in form by L. *admīrārī*, 'to admire'. See **ameer, amir.**

admiralty, n. — ME., fr. OF. *admiralte* (whence MF. *amiralte*, F. *amirauté*). See **admiral** and **-ty.**

admiration, n. — F., fr. L. *admīrātiōnem*, acc. of *admīrātiō*, 'a wondering at, admiration', fr. *admīrātus*, pp. of *admīrārī*. See **admire** and **-ation.**

admirative, adj. — F. *admiratif* (fem. *admirative*), fr. Late L. *admīrātīvus*, fr. *admīrātus*, pp. of *admīrārī*. See next word and **-ative.**

admire, tr. and intr. v. — F. *admirer*, fr. L. *admīrārī*, 'to wonder at', fr. **ad-** and *mīrārī*, 'to wonder', fr. *mīrus*, 'marvellous', whence also *mīrāculum*, 'a wonderful thing, marvel'. See **miracle** and cp. **marvel.**
Derivatives: *admir-ed*, adj., *admir-ed-ly*, adv., *admir-er*, n., *admir-ing*, adj., *admir-ing-ly*, adv.

admissible, adj. — F., fr. Late L. *admissibilis*, fr. L. *admissus*, pp. of *admittere*. See **admit** and **-ible.**
Derivatives: *admissibil-ity*, n., *admissible-ness*, n., *admissibl-y*, adv.

Sumber: Klein, Ernest. 1966: 25 & 26. A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume I. A-K. Amsterdam London New York: Elsevier Publishing Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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Ministres

Pada buku karya Cormenin, M. De (1837: 105) berjudul '*Questions de Droit Administratif. Cinquieme Edition. Tome Premier'* (Bruxelles: Societe Typographique Belge) tercetak '*Ministres*'. Kutipannya tergambar seperti ini:

CHAPITRE II.

MINISTRES.

Nous allons exposer les règles qui concernent :

1° Le mode de procéder devant les ministres et la forme de leurs décisions ;

2° La nature, l'étendue et les limites de leur juridiction ;

3° Le caractère, la force et les effets des décisions ministérielles ;

4° Leur exécution ;

5° L'autorité d'appel à laquelle ils ressortissent.

Mode de procéder.

I. Le mode de procéder devant les ministres en matière contentieuse, n'a été organisé jusqu'ici par aucune loi, ni par aucun réglement.

L'instruction des affaires s'y fait sans frais, sur simples mémoires des parties et productions de pièces, sans constitution d'avocats, sans ordonnance de soit-communiqué à la partie adverse, lorsque cette partie n'est pas l'État lui-même.

Les ministres ne sont pas astreints à prononcer dans un certain délai, et, par conséquent, il dépend d'eux seuls d'accélérer ou de retarder l'instruction [2].

Les ministres prennent leurs décisions ou d'office, ou sur le rapport d'une commission spéciale, ou sur la proposition des directions générales qui leur sont subordonnées, ou sur l'exposé de leurs bureaux, ou de l'avis du comité du conseil d'État attaché à leur département, ou sur la provocation des préfets, ou sur la demande des parties [3].

Sumber: Cormenin, M. De. 1837: 105. Questions de Droit Administratif. Cinquieme Edition. Tome Premier. Bruxelles: Societe Typographique Belge. Gambar disajikan oleh Levri Ardiansyah (2017).

Nous allons exposer les règles qui concernent :
1" Le mode de procéder devant les ministres et la forme de leurs décisions ;
3° La nature, l'étendue et les limites de leur juridiction;
5" Le caractère, la force et les effets des décisions ministérielles;
4" Leur exécution; S° L'autorité d'appel h laquelle ils ressortissent.
Saya akan mengungkapkan peraturan yang menjadi perhatiannya
1 Bagaimana melanjutkan pendeta? dan bentuk keputusan mereka;
3 ° Sifat, luas dan batasannya yurisdiksi mereka;
5 "Karakter, kekuatan dan efek dari keputusan menteri;
4 "eksekusi mereka; S ° Otoritas pemohon dimana mereka berada.

Les ministres ne sont pas astreints à prononcer dans un certain délai, et, par conséquent, il dépend d'eux seuls d'accélérer ou de retarder l'instruction [al. Les ministres prennent leurs décisions ou d'office, ou sur le rapport d'une commission spéciale , ou sur la proposition des directions générales qui leur sont subordonnées, ou sur l'exi>osé de leurs bureaux, ou de l'avis du comité du conseil d'État attaché 'a leur département, ou sur la provocation des préfets, ou sur la demande des parties [a].
Menteri tidak berkewajiban untuk diucapkan dalam waktu tertentu, dan, oleh Oleh karena ini, itu tergantung pada mereka sendiri untuk mempercepat atau untuk menunda instruksi [al.
Menteri membuat keputusan mereka atau ex officio, atau atas laporan komisi khusus, atau pada proposal direktorat jenderal yang subordinasi, atau berdasarkan kantor, atau merunut pemikiran pendapat Dewan Komisaris melekat pada departemen mereka, atau pada provokasi prefek, atau di
meminta pihak [a].
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Prinsip-prinsip kementerian dan fungsi menteri tercetak pada buku karya Cormenin, M. De (1837: 106) berjudul '*Questions de Droit Administratif. Cinquieme Edition. Tome Premier'* (Bruxelles: Societe Typographique Belge) seperti ini:

106 DROIT ADMINISTRATIF. TIT. II. CHAP. II.

II. Du principe que les ministres sont principalement agens du pouvoir exécutif, il suit :

Que ce n'est que par exception qu'ils sont juges [1].

Nature et étendue de leur juridiction.

III. Du principe que les ministres sont les supérieurs hiérarchiques de tous les agens de l'administration, il suit :

Qu'il leur appartient de statuer sur le recours des parties, contre les décisions des préfets qui ont excédé leur compétence, ou qui sont prises dans les limites de leurs attributions [2].

IV. Du principe que les ministres sont constitutionnellement responsables des actes de leurs subordonnés, il suit :

Qu'ils peuvent rapporter ou ordonner de rapporter tous les arrêtés des préfets rendus en matière purement exécutive [3].

V. Du principe que les ministres sont indépendans dans le ressort et les limites de leur juridiction, il suit :

Que leurs décisions ne peuvent être rapportées ni par leurs collègues, ni par les conseils de préfecture, ni par les tribunaux [4].

VI. Du principe que les ordonnances royales rendues par la voie gracieuse, ne sont pas attaquables devant le conseil d'État, il suit :

Que les décisions des ministres ne sont pas également attaquables, lorsqu'elles ne sont que l'exécution desdites ordonnances [5].

VII. Du principe qu'il n'y a pas, auprès du conseil d'État, de procureur du Roi, ayant pouvoir de dénoncer la violation de la loi, d'office ou sur la demande des ministres, il suit :

Que les ministres ont qualité pour se

Sumber: Cormenin, M. De. 1837: 106. Questions de Droit Administratif. Cinquieme Edition. Tome Premier. Bruxelles: Societe Typographique Belge. Gambar disajikan oleh Levri Ardiansyah (2017).

II. Du principe que les ministres sont principalement ageiis du pouvoir exécutif, il suit : (.tue ce n'est que par exception qu'ils sont juges [i]. Nature et C-lenduc de leur juridiction. III. Du principe que les ministres sont les siijièrieurs hiérarchiques de tous les agens de l'adminislralion, il suit : (^u'il leur appartient de statuer sur le recours des parties , contre les décisions »les préfets qui ont excédé leur eompétenee , ou qui sont prises dans les limites de leurs attributions [2].

II. Prinsip bahwa menteri adalah terutama dari kekuasaan eksekutif, dia berikut: (hanya karena pengecualian bahwa mereka adalah hakim [i]. Alam dan C-Luck dari yurisdiksi mereka. III. Prinsip bahwa menteri adalah saudara kandung dari semua agen administrasi, berikut ini: (terserah mereka untuk memutuskan banding para pihak, melawan Prefek yang telah melampaui kemampuan mereka , atau yang diambil dalam batas-batasnya dari atribusi mereka [2].
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IV. Du principe que les ministres sont constitutionnellement responsables des actes de leurs subordonnés, il suit : Qu'ils peuvent rapporter ou ordonner de rapporter tous les arrêtés des préfets reudus en matière purement exécutive [a]. V. Du principe que le ministres sont indépendans dans le ressort et les limites de leur juridiction, il suit : Que leurs décisions ne peuvent être rapportées ni par leurs collègues, ni par les conseils de préfecture, ni par les tribunaux [«].*

V. Prinsip bahwa menteri adalah bertanggung jawab secara konstitusional tindakan bawahan mereka, berikut ini: Bahwa mereka bisa melapor atau memesan untuk melaporkan semua perintah prefek reudus dalam masalah eksekutif murni [a]. V. Prinsip bahwa para menteri berada Independen di musim semi dan batasnya dari yurisdiksi mereka, berikut ini:
Itu keputusan mereka tidak bisa tidak dilaporkan oleh rekan mereka maupun oleh dewan prefektur, atau oleh pengadilan

VI. Du principe que les ordonnances royales rendues par la voie gracieuse, ne sont pas attaquables devant le conseil d'État, il suit : Que les dérisions des ministres ne sont pas également attaquables, lorsqu'elles ne sont que l'exécution desdites ordonnances [5]. VU. Du principe qu'il n'y a pas , auprès du conseil d'État , de procureur du Roi, ayant pouvoir de dénoncer la violation de la loi , d'office ou sur la demande des ministres.

VI. Prinsip tata cara royalti yang diberikan dengan cara anggun, jangan tidak dapat ditantang di hadapan Dewan Negara, dia berikut: Bahwa cemoohan para menteri tidak tidak sama-sama diserang, padahal tidak adalah bahwa eksekusi perintah tersebut [5]. VU. Dari prinsip bahwa tidak ada dari Dewan Negara, jaksa King, memiliki kekuatan untuk mencela pelanggaran tersebut hukum, ex officio atau atas permintaan menteri.
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contoh *ministry* di *French*

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Pada buku karya Guizot, M & DeWitt, Madame Guijot. p. 50 berjudul ''*The History of French. Edition De Luxe. Translated by Robert Black. Volume V'* (New York Philadelphia Chicago: The Nottingham Society) tercetak '*The Ministry of Cardinal Fleury* (1723-1748)'. Kutipannya tergambar seperti ini:

CHAPTER LII.

LOUIS XV., THE MINISTRY OF CARDINAL FLEURY (1723—1748).

THE riotous and frivolous splendor of the Regency had suffered eclipse; before their time, in all their vigor, through disgrace or by death, Law, Dubois and the Regent, had suddenly disappeared from the stage of the world. To these men, a striking group for different reasons, notwithstanding their faults and their vices, was about to succeed a discreet but dull and limp government, the reign of an old man and, moreover, a priest. The bishop of Fréjus, who had but lately been the modest preceptor of the king and was quietly ambitious and greedy of power, but without regard to his personal interests, was about to become Cardinal Fleury and to govern France for twenty years; in 1723, he was seventy years old.

Whether from adroitness or prudence, Fleury did not all at once aspire to all-powerfulness. Assured in his heart of his sway over the as yet dormant will of his pupil, he suffered the establishment of the duke of Bourbon's ministry, who was in a greater hurry to grasp the power he had so long coveted. When the king received his cousin, head of the House of Condé, who had but lately taken the place of the duke of Maine near his person, he sought in his preceptor's eyes the guidance he needed, and contented himself with sanctioning by an inclination of the head the elevation of the duke, presented by Fleury. The new duke of Orleans, as yet quite a youth, hovering between debauchery and devotion, obtained no portion of his father's heritage; he had taken away from him even the right of doing business with the king, a right secured to him by his office of colonel-general.

Sumber: Guizot, M & DeWitt, Madame Guijot. p. 50. The History of French. Edition De Luxe. Translated by Robert Black. Volume V. New York Philadelphia Chicago: The Nottingham Society.. Gambar disajikan oleh Levri Ardiansyah (2017).

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Contoh konteks administration di *France* terbaca pada buku karya Bassompierre, Francois de. MDCCXXIII (1723: 11) berjudul ‘*Mémoires du maréchal de Bassompierre contenans l'histoire de sa vie et de ce qui s'est fait de plus remarquable ... tome premier quatriéme’* (A Amsterdam: Aux Depens de la Compagnie) yakni ‘*vint en Lorraine y d’où il chafla la Reine de Danemark, envoya le Duc Charles en fon Royaume , pour y être élevé avec les enfans de France: laiffa l’adminiftration de la Lorraine au Comte de Vaudemont*.’ yang berarti ‘Datang ke Lorraine tempat Ratu Denmark dan mengirim Duc Charles di kerajaannya, untuk dibawa bersama anak-anak *de France* dengan administrasi Lorraine yang dipimpin Pangeran Vaudemont.’ Kutipannya tergambar seperti ini:

DE BASSOMPIERRE. 11

cle, Nicolas Comte de Vaudemont, ſous la protection de l’Empereur Charles-Quint. Mais au bout de ſix ans, le Roi de France Henri deuxiéme, ayant fait une puiſſante armée, pour aſſiſter les Proteſtans d’Allemagne contre l’Empereur Charles-Quint, il prit en paſſant les Villes Imperiales de Metz, Thoul & Verdun: vint en Lorraine, d’où il chaſſa la Reine de Danemark, & envoya le Duc Charles en ſon Royaume, pour y être élevé avec les enfans de France: laiſſa l’adminiſtration de la Lorraine au Comte de Vaudemont. Et mon grand-

Sumber: Bassompierre, Francois de. MDCCXXIII (1723: 11). Mémoires du maréchal de Bassompierre contenans l'histoire de sa vie et de ce qui s'est fait de plus remarquable ... tome premier quatriéme. A Amsterdam: Aux Depens de la Compagnie. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada contoh ini, kata ‘*administration*’ digunakan dalam konteks lingkungan kerajaan.

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Pada buku karya Maguero, M. Edouard (1905: 13 & 14) berjudul '*Dictionnaire de L'Administration Francaise. Cinquiemme Edition. Tome I – A E'* (Paris: Berger-Levrault) tercetak:

ADMINISTRATION. 1. On désigne par ce mot l'ensemble des services publics qui ont pour objet de pourvoir, par l'exécution des lois, aux besoins ou aux intérêts collectifs des citoyens, les attributions de ces services, leurs pouvoirs et leur mode de procéder.

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CHAP. I. — INTRODUCTION.

2. Les services publics dont l'ensemble constitue l'administration tendent à assurer à tous les citoyens la sécurité, la justice, l'assistance, l'hygiène, l'instruction, les facilités de communication et d'échange, etc... L'administration comporte donc un assez grand nombre de branches dont les principales seront énumérées ci-après avec plus de détails.

3. Ces différents services ont pour organes des agents et des conseils ou corps délibérants dont il est traité également ci-dessous.

4. Le droit administratif forme le corps des lois, décrets, ordonnances, règlements, arrêtés, instructions, etc., rendus pour instituer les organes dont il s'agit et régler leur fonctionnement.

On demande souvent pourquoi il n'existe pas un code administratif, comme il existe un code de commerce, un code pénal, etc. La réponse est simple. Ces codes règlent des intérêts privés reposant tous — directement ou indirectement — sur un petit nombre de principes, relatifs à la constitution de la famille et de la propriété, qui sont presque immuables dans les sociétés modernes. Le droit administratif est également régi par des principes généraux; mais leur application est influencée par les circonstances politiques et sociales. Sans cesse de nouveaux besoins surgissent; des faits imprévus se présentent et provoquent de nouvelles mesures, de nouvelles dispositions législatives. Un code renfermant le recueil de ces textes serait en état de perpétuelle transformation.

5. D'un autre côté, la législation administrative est appelée à régler des matières si nombreuses et si différentes les unes des autres, qu'il paraît difficile et peut-être illogique de les réunir en un seul code. Le droit privé n'est-il pas également divisé en plusieurs? Or, rien n'empêche de considérer comme autant de codes les lois orga-

ADMINISTRATION, 6-9.

niques qui régissent les principales parties de l'administration.

En tout cas, ce qui importe, c'est que les dispositions législatives soient suffisamment précises et complètes, pour que chaque service public se trouve réglé, chaque intérêt protégé, en un mot, pour que la grande machine administrative, dont nous allons indiquer le mécanisme, puisse fonctionner sans entrave et avec la régularité indispensable au bien public.

CHAP. II. — DE L'ADMINISTRATION EN GÉNÉRAL ET DE SES RAPPORTS AVEC LES POUVOIRS DE L'ÉTAT.

Sect. 1. — Des pouvoirs de l'État.

6. La société ne saurait exister sans lois. Les lois sont en général établies d'une manière solennelle et en suivant des formes particulières. En France, la Constitution prescrit le mode d'après lequel les lois doivent être faites. Émanant soit de l'initiative du Gouvernement, soit de celle d'un ou de plusieurs sénateurs ou députés, elles sont parfois préparées par le Conseil d'État, toujours délibérées et votées par les représentants de la nation et promulguées par le chef de l'État.

7. L'exécution des lois est assurée par le pouvoir exécutif, qui réunit en lui trois autorités, dont les fonctions sont bien distinctes : le Gouvernement, l'autorité administrative et l'autorité judiciaire.

Le Gouvernement [1] comprend la direction supérieure des intérêts de l'État, tant à l'extérieur qu'à l'intérieur : il donne l'impulsion à l'administration, et la justice se rend en son nom.

Les deux autorités, administrative et judiciaire, sont l'une et l'autre appelées à exécuter ou à appliquer les lois; mais chacune exerce sa fonction dans une sphère particulière.

Sect. 2. — De l'administration en général.

8. L'administration comprend, en principe, la justice: en fait, l'autorité administrative est chargée de juger presque tous les différends qui n'ont pas un caractère exclusivement privé. Mais on réserve le nom d'autorité judiciaire aux tribunaux de tout ordre chargés du règlement des litiges privés; l'organisation seule de ces tribunaux ressortit au droit administratif, à l'exclusion de leur fonctionnement.

On doit distinguer, d'autre part, l'administration du Gouvernement.

9. L'autorité gouvernementale et l'autorité administrative sont souvent réunies dans la même personne, comme dans celle du chef de l'État ou des ministres; fonctionnaires et agents administratifs sont hiérarchiquement subordonnés aux membres du Gouvernement, et font, pour ainsi dire, corps avec lui.

Mais ces deux autorités n'en sont pas moins distinctes l'une de l'autre, comme la volonté et l'action. C'est le Gouvernement, représenté, dans la Constitution actuelle, par le chef de l'État et les ministres, qui dirige, qui donne l'impulsion; c'est l'administration qui agit, qui exécute [1]. Pour

1. Le sens du mot *Gouvernement* n'est pas encore fixé par l'usage. Selon la plupart des auteurs, le Gouvernement c'est la direction supérieure de l'État, de l'administration et de la justice; c'est plus que le pouvoir exécutif, car le pouvoir parlementaire y participe indirectement en mettant en jeu la responsabilité ministérielle. D'autres considèrent *Gouvernement* purement et simplement comme synonyme de *pouvoir exécutif,* le pouvoir

Sumber: Maguero, M. Edouard. 1905: 13 & 14. Dictionnaire de L'Administration Francaise. Cinquiemme Edition. Tome I – A E. Paris: Berger - Levrault. Gambar disajikan oleh Levri Ardiansyah (2017).

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Les services publics dont l'ensemble constitue l'administration tendent à assurer à tous les citoyens la sécurité, la justice, l'assistance, l'hygiène, l'instruction, les facilités de communient ion et (rechange, etc.. L'administration comporte donc un assez grand nombre de branches dont les principales seront énumérées ci-après avec plus de détails.
Pelayanan publik yang bersama - sama merupakan administrasi cenderung meyakinkan semua orang keamanan warga, keadilan, bantuan, kebersihan, pendidikan, fasilitas komunal ion dan (suku cadang, dll) jadi cukup banyak cabang yang utama akan tercantum di bawah ini dengan lebih jelasnya.

Ces différents services ont pour organes des agents et des conseils ou corps délibérants dont
il est traité également ci-dessous.
Departemen yang berbeda ini memiliki agen dan dewan atau badan musyawarah yang Hal ini juga diperlakukan di bawah ini.

Le droit administratif forme le corps des lois, décrets, ordonnances, règlements, arrêtés, instructions, etc., rendus pour instituer les organes dont il s'agit et régler leur fonctionnement. On demande souvent pourquoi il n'existe pas un code administratif, comme il existe un code de commerce, un code pénal, etc. La réponse est simple. Ces codes règlent des intérêts privés reposant tous — directement ou indirectement — sur un petit nombre de principes, relatifs à la constitution de la famille et de la propriété, qui sont presqueimmuablesdansles sociétés modernes. Le droit administratif est également régi par des principes généraux; mais leur application est influencée par les circonstances politiques et sociales. Sans cesse de nouveaux besoins surgissent; des faits imprévus se présentent et provoquent de nouvelles mesures, de nouvelles dispositions législatives. Un code renfermant le recueil de ces textes serait en état de perpétuelle transformation.
Hukum administrasi membentuk badan hukum hukum, keputusan, peraturan, peraturan, perintah, instruksi, dll, untuk mendirikan organ yang mana dan bagaimana cara mengatur fungsinya. Kita sering bertanya mengapa hal itu tidak ada kode administratif, karena ada kode
perdagangan, hukum pidana, dll. Jawabannya sederhana saja. Kode-kode ini mengatur kepentingan pribadi beristirahat semua - secara langsung atau tidak langsung - pada sejumlah kecil prinsip yang berkaitan dengan konstitusi keluarga dan harta benda, yang hampir tidak berubah dalam masyarakat modern. Hukum administrasi juga diatur oleh prinsip umum; namun aplikasinya adalah pengaruh dikelilingi oleh keadaan politik dan sosial. Terus-menerus kebutuhan baru muncul; dari Kejadian tak terduga muncul dan menyebabkan langkah baru, ketentuan baru legislatif. Kode berisi koleksi teks-teks ini akan berada dalam keadaan transformasi terus-menerus.

D'un autre côté, la législation administrative est appelée à régler des matières si nombreuses et si différentes les unes des autres, qu'il paraît difficile et peut-être illogique de les réunir en un seul code. Le droit privé n'est-il pas également divisé en plusieurs ? Or, rien n'empêche de considérer comme autant de codes les lois organiques qui régissent les principales parties de l'administration. En tout cas, ce qui importe, c'est que les dispositions législatives soient sutlisamment précises et complètes, pour que chaque service public se trouve réglé, chaque intérêt protégé, en un mot, pour que la grande machine administrative, dont nous allons indiquer le mécanisme, puisse fonctionner sans entrave et avec la régularité indispensable au bien publie.
Di sisi lain, administrasi dipanggil untuk mengatur begitu banyak hal dan sangat berbeda satu sama lain, sepertinya Sulit dan mungkin tidak logis untuk menyatukan mereka kode tunggal Bukan hukum pribadi secara merata dibagi menjadi beberapa? Namun, tidak ada yang mencegah pertimbangkan sebanyak mungkin kode hukum organik yang mengatur bagian - bagian utama administrasi.Bagaimanapun, yang penting adalah ketentuannya
Ketentuan legislatif cukup tepat dan lengkap, sehingga setiap pelayanan publik menemukan menetap, setiap kepentingan yang dilindungi, dalam sebuah kata, untuk mesin administrasi besar, yang saya akan menunjukkan mekanismenya, bisa bekerja tanpa hambatan dan dengan keteraturan yang diperlukan untuk yang baik menerbitkan.

DE L'ADMINISTRATION EN GÉNÉRAL ET DE SES RAPPORTS AVEC LES POUVOIRS DE L'ÉTAT.
Fect. 1. — Des pouvoirs de l'État.
ADMINISTRASI DI UMUM DAN HUBUNGANNYA DENGAN KERTAS NEGARA.
Fect. 1. - Kekuatan negara.

La société ne saurait exister sans lois. Les lois sont en général établies d'une manière solennelle et en suivant des formes particulières. En France, la Constitution prescrit le mode d'après lequel les lois doivent être faites. Émanant soit de l'initiative du Gouvernement, soit de celle d'un ou de plusieurs sénateurs ou députés, elles sont parfois préparées par le Conseil d'État, toujours délibérées et votées par les représentants de la nation et promulguées par le chef de l'État.
Masyarakat tidak bisa eksis tanpa hukum. itu hukum biasanya ditetapkan secara sungguh-sungguh dan mengikuti bentuk tertentu. di Perancis, Konstitusi menentukan mode merunut pemikiranhukum mana yang harus dibuat Emanating atas prakarsa Pemerintah, bahwa dari a atau beberapa senator atau deputi, mereka Terkadang disiapkan oleh Dewan Negara, selalu musyawarah dan dipilih oleh perwakilan dari bangsa dan diundangkan oleh Kepala Negara.

L'exécution des lois est assurée par le pouvoir exécutif, qui réunit en lui trois autorités, dont les fonctions sont bien distinctes : le Gouvernement, l'autorité administrative et l'autorité judiciaire. Le Gouvernement 1 comprend la direction supérieure des intérêts de l'Etat, tant à l'extérieur qu'à l'intérieur : il donne l'impulsion à l'administration, et la justice se rend en son nom. Les deux autorités, administrative et judiciaire, sont l'une et l'autre appelées à exécuter ou à appliquer les lois ; mais chacune exerce sa fonction dans une sphère particulière.
Pelaksanaan hukum dipastikan dengan kekuatan eksekutif, yang menyatukan dia tiga otoritas, yang fungsinya sangat berbeda: Pemerintah, otoritas administratif dan otoritas pengadilan.
Pemerintah 1 mencakup manajemen senior Kepentingan negara, baik di luar hanya di dalam: ini memberi dorongan kepada pemerintah, dan kebenaran berlaku atas nama-Nya.
Kedua otoritas, administratif dan yudikatif, keduanya dipanggil untuk melakukan atau menerapkan hukum; namun masing-masing menjalankan fungsinya dalam lingkup tertentu.

De l'administration en général.
L'administration comprend, en principe, la justice; en fait, l'autorité administrative est chargée de juger presque tous les différends qui n'ont pas un caractère exclusivement privé. Mais on réserve le nom d'autorité judiciaire aux tribunaux de tout ordre chargés du règlement des litiges privés ; l'organisation seule de ces tribunaux ressortit au droit administratif, à l'exclusion de leur fonctionnement. On doit distinguer, d'autre part, l'administration du Gouvernement.

Dari administrasi pada umumnya.
Administrasi, pada prinsipnya, termasuk, meliputi keadilan; Padahal, kewenangan administrasi yang bertugas untuk menilai hampir semua perselisihan yang belum bukan karakter pribadi secara eksklusif. Tapi kita simpan nama otoritas kehakiman ke pengadilan dari semua jenis bertanggung jawab atas penyelesaian sengketa pribadi; satu-satunya organisasi pengadilan ini adalah hukum administrasi, dengan mengesampingkan operasi. Kita harus membedakan, di sisi lain, administrasi dari Pemerintah.

L'autorité gouvernementale et l'autorité administrative sont souvent réunies dans la mêmepersonne, comme dans celle du chef de l'État ou des ministres ; fonctionnaires et agents administratifs sont hiérarchiquement subordonnés aux membres du Gouvernement, et font, pour ainsi dire, corps avec lui. Mais ces deux autorités n'en sont pas moins distinctes l'une de l'autre, omme la volonté et Faction. C'est le Gouvernement, représenté, dans la Constitution actuelle, par le chef de l'État et les ministres, qui dirige, qui donne l'impulsion; c'est l'administration qui agit, qui exécute 1 . Pour faire comprendre l'importance

piatique de cette distinction, il suffit de citer un exemple. Quand une loi charge expressément un fonctionnaire, soit un préfet, de l'exécution d'une de ses dispositions, ce magistrat ne se croit pas autorisé à l'appliquer avant d'en avoir reçu Tordre du ministre. Ainsi, quoique la loi désigne un agent déterminé de l'administration, celui-ci ne peut a.nr qu'après avoir reçu l'impulsion et la direction de ses chefs hiérarchiques.

Kewenangan pemerintah dan kewenangan administratif sering disatukan sama orang, seperti Kepala Negara Bagian atau menteri; pejabat dan staf administrasi secara hierarkis di bawahnya anggota Pemerintah, dan melakukannya untuk untuk mengatakan, tubuh bersamanya. Tapi kedua otoritas ini tidak ada yang kurang berbeda satu sama lain, seperti kemauan dan Fraksi. Ini adalah Pemerintah yang diwakili di Konstitusi saat ini, oleh Kepala Negara dan pendeta, yang mengarahkan, siapa yang memberi dorongan; itu adalah administrasi yang bertindak, yang mengeksekusi 1 . Untuk memahami pentingnya hal ini Perbedaannya, berikan saja contohnya. ketika sebuah undang-undang secara tegas menuduh seorang pejabat, seorang prefek, pelaksanaan salah satu ketentuannya, hakim ini tidak percaya dirinya diberi wewenang untuk Terapkan sebelum menerima perintah dari Menteri. Jadi, meski hukum menunjuk agen tertentu dari administrasi, yang terakhir tidak bisa setelah menerima dorongan dan arah atasannya.

Aminister

Pada buku karya Skeat, Walter W., (1891: 31) berjudul '*Principles of English Etymology. Second Series. The Foreign Element'* (Oxford at the Clarendon Press) terbaca upaya Skeat menelusuri beberapa kata pada Bahasa *Anglo-French* yang tercetak pada (1) '*The Statutes of the Realm*', tahun 1810 berdasar perintah *George III*; (2) '*The Year- Books of Edward I'*, tahun 1293, *ed. A. J. Horwood. Record Series, 1866;* dan (3) '*The Briton*', *ed. F. Morgan Nichols, M.A. 2 vols. Oxford, 1865. Late 13th century.* Pada daftar kata-kata yang berasal dari *Anglo-French* terdapat kata '*aminister*' yang berarti '*to administer to a will*' dan juga kata '*administracioun*'. Kutipannya tergambar seperti ini:

§ 21.] *ANGLO-FRENCH LAW TERMS.* 31

terms, but many others relating to things of which the law-courts took cognisance. By referring to my lists, I find, for example, that the following words are frequently used in the Statutes of the Realm, in the Year-books of Edward I, and in Britton. *Abatre* (to abate), *abatable*, *abatement*, *abbesse*, *abbettement* (abetment), *abbeye*, *abettour*, *abiuracion*, *able*, *abregger* (to abridge), *abreggement*, *accessori*, adj., *accountable*, *acustume*, pp., *acord* (agreement), *acordaunt*, *acounte*, *acru* (accrued), *acquiter*, *acquitance*, *acre* (an A. F. spelling of the A. S. *æcer*), *action*, *adicion*, *adeu* (adieu), *aiorner* (to adjourn), *aiornement* (adjournment), *aiugger* (to adjudge), *aminister* (to administer to a will), *administracioun*, *adulterie*, *avantage*, *advent*, *adversarie*, *adversite*, *avis* (advice), *aviser* (to advise), *avoueson* (advowson), *affinite*, *affermer*, *affirmative*, *affrei* (affray), *age*, *agistement*, *agreer* (to agree), *aide*, *aider* (to aid), *alien*, *alienacion*, *alleger*, *aloter* (to allot), *alower* (to allow), *allowance*, *amender* (to amend), *amendement*, *amerciable*, *amercier* (to amerce), *amerciement*, *amounter* (to amount), *ancestre* (ancestor), *auncien* (ancient), *annexer*, *annuele* (annual), *annuite*, *annuller*, *antiquite*, *apparail*, *apparaunt heyr* (heir apparent), *apel* (appeal), *apparence* (appearance), *apporcioner*, *apurtenant* (appertaining to), *apurtenaunce*, *appropriacion*, *approver* (to approve), *arable*, *arbitrement*, *iuges arbitres* (arbiters), *armes* (arms, weapons), *arener* (to arraign), *array*, *en arere* (in arrear), *arrerage*, *arest*, s., *arester*, v., *arrival*, *arsun* (arson), *assartir* (to assart), *asay*, s., *asayer*, v., *asaiour*, *assemblee*, *assent*, s., *sasentir*, v., *assetz* (assets), *assigne*, s., *assigner*, v., *assignement*, *assise*, *assuager* (to assuage), *assumpcion*, *asseurance*, *attacher* (to attach), *attachement*, *ateint* (attainted), *ateinte*, s., (attaint), *attempter*, *attendre* (to attend), *atirer* (to attire), *attorne* (an attorney), *audience*, *auditour*, *aunte* (aunt), *autentik* (M. E. *autentik*, now altered to *authentic*), *autorite* (M. E. *autorite*, now altered to *authority*), *auctorizer* (to authorise), *averer* (to aver), *averement*, *avower* (to avow), *avowri*, *agarder* (for older *awarder*, to award).

Sumber: Skeat, Walter W. 1891: 31. Principles of English Etymology. Second Series. The Foreign Element. Oxford at the Clarendon Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Dari *Ministre* menjadi *Minister*

Beberapa kata pada Bahasa *Modern English* (ME) beraasal dari Bahasa *Anglo-French* (AF) dengan dasar '*The sound is the same and the symbol is usually modern*', diantaranya adalah kata '*Ministre*' pada *Anglo-French* menjadi '*Minister*' pada *Modern English.* Pada buku karya Skeat, Walter W., (1891: 95) berjudul '*Principles of English Etymology. Second Series. The Foreign Element'* (Oxford at the Clarendon Press) tercetak

§ 63.] *DEVELOPMENT OF I.* 95

English. There was probably the same slight difference between the A. F. and the M. E. sound of the vowel as there still is between the *i* as heard twice in the F. *fini* and the E. *i* in *fin*. The M.E. sound was substituted for the A. F. sound, and that was all. The exceptions are few and slight, and are noted at the end of this section. Even in the combination *ir* the same sound remains if the *r* be trilled (as in *spirit*), but if the trill be lost the obscure sound results, as in *virgin*. We should therefore keep the untrilled *ir* separate: but all the other cases can be considered together. The accented *i* is short in E. closed syllables, but long (i. e. diphthongal) in open ones.

We may also consider the mod. E. short *y*, as in *syllable*, *myrrh*, at the same time. The sound is the same, and the symbol is usually modern, replacing the M. E. *i*.

Ribald, ribald; *tribut*, tribute. *Vicaire*, vicar; *victor*, victor. *Adicion*, addition; *affliccioun*, affliction; *condicioun*, condition. *Enricher*, to enrich; *richesce*, *richésse*, M. E. *richés-se*, riches. *Considerer*[1], to consider; *idiot*, idiot. *Griffon*, griffin (with *o* weakened to *i*). *Dignetē*, dignity; *ignoraunce*, ignorance; *figure*, M.E. *figúr-e*, figure; *vigur*, vigour. *Pigoun* (with *g*=*j*), pigeon; *vigile*, vigil. *Bille*, bill (as in parliament); *billette*, billet; *diligence*, diligence; *piller*, pillar; *pilori*, *pillory*, pillory; *sillable*, also *sillabe*, M. E. *sillable*, syllable; *villein*, *vilein*, villain. *Chimenee* (a fire-place), syncopated to chimney; *image*, image; *limite*, limit; *simple*, adj., simple. *Affinitē*, affinity; *continuer*, to continue; *iniurie* (=*injurie*), injury; *instance*, instance; *ministre*, minister; *oppinion*, *opinion*, opinion; *prince*, prince; *vineter*, curiously altered to M. E. *vintener*, now syncopated to vintner. *Escripture*, scripture; *ypocrite*, hypocrite (with *h* supplied, owing to knowledge of Greek). *Miracle*, miracle; *mireur*, *mirreur*, M. E. *mirour*, mirror. *Issue*, issue; *prison*, prison; *visage*, visage; *visiter*, to visit;

[1] The *i* in this word was originally long; it was shortened before the *dr* in M. E. *considren*.

Sumber: Skeat, Walter W. 1891: 95. Principles of English Etymology. Second Series. The Foreign Element. Oxford at the Clarendon Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Bagi saya, *etymology* amat penting dan bermanfaat untuk Ilmu Administrasi. Melalui *etymology,* dapat diketahui:

1. Pada kata ‘Administrasi’ terdapat beragam bentuk kata yang berbeda dari berbagai bahasa yang berbeda (*the same word ‘Administration’ takes different forms in different languages*);
2. Pada kata ‘Administrasi’ terdapat beragam bentuk kata yang berbeda pada satu bahasa yang sama (*the same word ‘Administration’ takes different forms in one and the same language*);
3. Pada kata ‘Administrasi’ terdapat banyak kata yang berbeda namun bentuknya sama meski terdapat pada beberapa bahasa yang berbeda (*that different words ‘Administration’ take the same form in different languages*); dan
4. Pada kata ‘Administrasi’ terdapat banyak kata yang berbeda dengan bentuk yang sama pada satu bahasa yang sama (*that different words ‘Administration’ take the same form in one and the same language*).

Pertama, *the same French words were pronounced differently by the inhabitants of the other countries,* contoh *French ‘ministre’, Latin ‘ministerium’*
Kedua, *dialects* dan *double forms*
Ketiga, *dialects* juga *menistre, minister, ministre*
Keempat, *the same causes, to assume the same*
Egypt ‘*Dioiketes*’ yang berarti ‘*The head of the whole government*’, *Greek ‘Kubernan’* yang berarti gubernur.

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Minus

Pada buku karya Klein, Ernest., (1966: 985) berjudul '*A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume I A-K'* (Amsterdam London New York: Elsevier Publishing Company) tercetak kata '*Minus*' yang berarti '*smaller, less'*. Kata '*Minus*' ini berasal dari kata pada Bahasa Latin yang *neuter of minor.* Kutipannya tergambar seperti ini:

985

minus, prep. — L., neut. of *minor*, 'smaller, less'. **See minor** and cp. the first element in **muscovado.**

984

minor, adj. — ME., fr. L., 'smaller, less', compar. corresponding to the superl. *minimus*. See **minimum.**
Derivative: *minor*, n.

minimum, n. — L., neut. of *minimus*, 'smallest, least', superl. corresponding to the compar. *minor*, 'smaller, less', rel. to *minuere*, 'to make smaller, lessen, reduce', which derives fr. I.-E. **mi-nu-*, 'small, less; to lessen, diminish', whence also Gk. μινύθειν, 'to lessen', the first element in μινύ-ωρος, μινυ-ώριος, 'short-lived', OSlav. *minijĭ*, 'smaller'. Base *mi-nu-* is prob. an enlargement of base **mei-*, 'to lessen, diminish', whence OI. *mīyate*, 'diminishes, decays, declines', Gk. μείων, 'less'. Base **mei-*, 'to lessen, diminish', was perh. orig. identical with base **mei-*, 'to change' (see **mean,** 'of low rank'). — Cp. base **men-*, **menu-*, 'small', appearing in OI. *manā́k*, 'a little', Toch. B *meṅki*, 'less', Hitt. *maninka-*, 'short', Arm. *manr* (gen. *manu*), 'small, thin', *manuk*, 'child, boy, servant', Gk. μανός (for *μανϜός), 'thin, rare', μόνος (for *μόνϜος), 'single, alone', Lith. *meñkas*, 'mediocre', OIr. *menb*, 'small', Co. *minow*, 'to lessen', Goth. *minniza*, OHG., OS. *minniro*, MHG. *minre*, *minner*, G., Du. *minder*, OFris. *minnera*, *minra*, ON. *minni*, 'less', Goth. *minnists*, OHG., OS. *minnist*, MHG. *minnest*, G. *mindest*, OFris. *minnusta*, Du. *minst*, ON. *minnstr*, 'least', OE. *minsian*, 'to diminish'. (Co. *minow*, 'to lessen', and the Teut. words cited above could also be derived from base **minu-*.) Cp. **mince, minish, minister, minor, minuet, minus, minute, mister, nimiety.** Cp. also **meionite, meiosis, Ameiurus, Menshevik.** Cp. also **manometer, mono-.** Cp. also **mangle,** 'to mutilate'.

minimus, adj., the youngest of several boys of the same surname. — L., 'smallest'. See **minimum.**

Sumber: Klein, Ernest. 1966: 984 & 985. A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume II. Amsterdam London New York: Elsevier Publishing Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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To Grow Less

Kata '*Minus*' memiliki pengertian yang sama (*synonyme*) terhadap kata-kata '*To Abate, Lessen, Diminish* dan *Decrease*'. Kata '*Minus*' yang berarti *less* (kecil), terkait erat pada kata '*Minuo*' yang berarti *to lessen* (menjadi kecil) maupun kata '*Diminuo*'. Pada Bahasa *English,* kata '*Diminuo*' ini diadopsi menjadi kata '*Diminish*' atau yang terkadang tertulis sebagai kata '*Minish*'. Saya bertanya, 'Apakah kata '*Administration*' juga terbentuk berdasar kata '*Ad-Diminish*'? Pada buku karya Crabb, George., (1882: 614) berjudul '*English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers to which is Now Added an Index to the Words. New Edition with Additions and Corrections'* (New York: Harper & Brothers, Publishers) tercetak:

TO ABATE, LESSEN, DIMINISH, DECREASE.

ABATE, from the French *abattre*, signified originally to beat down, in the active sense; to come down, in the neuter sense. DIMINISH, or, as it is sometimes written, *minish*, from the Latin *diminuo*, and *minuo*, to lessen, and *minus*, less, expresses, like the verb LESSEN, the sense of either making less or becoming less. DECREASE is compounded of the privative *de* and *crease*, in Latin *cresco*, to grow, signifying to grow less.

Abate, *lessen*, and *diminish*, agree in the sense of becoming less and of making less; *decrease* implies only becoming less. *Abate* respects only vigor of action, and applies to that which is strong or violent, as a fever *abates*, pain, anger, etc., *abates; lessen* and *diminish* are applied to size, quantity, and number, but *lessen* is much seldomer used intransitively than *diminish;* things are rarely said to *lessen* of themselves, but to *diminish*. The passion of an angry man ought to be allowed to *abate* before any appeal is made to his understanding. Objects apparently *diminish* as they recede from the view.

Abate, transitively taken, signifies to bring down, *i. e.*, to make less in height or degree by means of force or a particular effort, as to *abate* pride or to *abate* misery; *lessen* and *diminish*, the former in the familiar, the latter in the grave style, signify to make less in quantity or magnitude by an ordinary process, as the size of a room is *lessened*, the credit of a person is *diminished*. We may *lessen* the number of our evils by not dwelling upon them; nothing *diminishes* the lustre of great deeds more than cruelty.

To *decrease* is to fall off; a retreating army will *decrease* rapidly when, exposed to all the privations and hardships attendant on forced marches, it is compelled to fight for its safety; some things *decrease* so gradually that it is some time before they are observed to be *diminished*.

The *decrease* is the process, the *diminution* is the result; as a *decrease* in the taxes causes a *diminution* in the revenue. The term *decrease* is peculiarly applicable to material objects which can grow less, *diminution* is applicable to objects generally which may become or be actually less from any cause.

Sumber: Crabb, George. 1882: 8 & 9. English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers ti which is Now Added an Index to the Words. New Edition with Additions and Corrections. New York: Harper & Brothers, Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

A*bate* berarti menjadikan berkurang tinggi maupun derajat (*to make less in height or degree*) melalui kekuatan ataupun upaya-upaya tertentu, sedangkan *diminish* berarti mengurangi jumlah (*to make less in quantity*) melalui proses tertentu, seperti terbaca pada kalimat '*The credit of a person is diminished*'. Untuk pengurangan jumlah, umumnya digunakan kata '*Lessen*' seperti terbaca pada kalimat '*The size of a room is lessened*'. Sedangkan untuk upaya mengurangi jumlah yang dilakukan secara bertahap, kerap digunakan kata '*Decrease*' yang menunjukan terjadinya pengurangan sebelum terlihat sebagai *to be diminished*. Dengan begini, *decrease* merupakan proses, sedangkan hasilnya berupa *diminution,* seperti terbaca pada kalimat '*A decrease in the taxes causes a diminution in the revenue*'. Kata '*Decrease*' diaplikasikan untuk objek yang dapat mengecil, sedangkan kata '*Diminution*' diaplikasikan pada objek yang bisa jadi mengecil atau memang senyatanya merupakan objek yang kecil.

Little

Kata '*Little*' yang berasal dari Bahasa *Dutch* yakni '*Lettel*' terkait pada cahaya yang meredup. Berbeda pada kata '*Small*' yang berasal dari Bahasa *German* yakni '*Smahl*' berarti sempit (*narrow*) dan *diminutive* yakni mengecil dari yang seharusnya (*less than it ought to be*). Pada buku karya Crabb, George., (1882: 614) berjudul '*English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers to which is Now Added an Index to the Words. New Edition with Additions and Corrections'* (New York: Harper & Brothers, Publishers) tercetak:

> *LITTLE, in Dutch Iettel, connected with light, etc., is a general term both in its sense and application. SMALL, in German smahl, narrow, and DIMINUTIVE, from minus, less, signifying made less, are particular terms conveying some collateral idea. What is little is so in the ordinary sense in respect to size; it is properly opposed to great: the small is that which is less than others in point of bulk ; it is opposed to the large : the diminutive is that which is less than it ought to be ; as a person is said to be diminutive in stature who is below the ordinary stature.*

Magisterial

Lawan kata '*Minus*' adalah '*Magister*' atau kata bendanya '*Magistrate*' yang berarti '*Public civil officer*'. Sumber kata '*Magistrate*' yakni '*Magistratus*' (*Latin*) justru berarti '*High civil official*' dan kata sifatnya yakni '*Magisterial*' berarti '*Authoritative*'. Bukankah ini justru adalah *administration?* Pada buku karya Klein, Ernest., (1966: 922) berjudul '*A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume I A-K'* (Amsterdam London New York: Elsevier Publishing Company) tercetak:

magisterial, adj., 1) pertaining to a master; 2) pertaining to a magistrate; 3) authoritative. — Formed with adj. suff. **-al** fr. Late L. *magisterius*, fr. L. *magister*, 'master'. See **master.**
Derivatives: *magisterial-ly*, adv., *magisterial-ness*, n.

magistracy, n., the office of a magistrate. — Formed fr. **magistrate** with suff. **-cy.**

magistral, adj., 1) magisterial; 2) guiding; 3) prepared for a particular case (*pharm.*) — L. *magistrālis*, 'of a master', fr. *magister*, gen. *magistrī*, 'master'. See **master** and adj. suff. **-al.**
Derivative: *magistral-ly*, adv.

magistrate, n., a public civil officer. — ME. *magistrat*, fr. L. *magistrātus*, 'high civil official, magistrate', fr. *magister*, gen. *magistrī*, 'master'. See **master** and subst. suff. **-ate.**
Derivatives: *magistrat-ive*, adj., *magistrat-ure*, n.

master, n. — ME. *maistre*, fr. OE. *mægester* and OF. *maistre* (F. *maître*). Both OE. *mægester* and OF. *maistre* derive fr. L. *magister*, 'master, chief, head, leader', whence also It. *maestro*, Ruman. *maestru*, OProvenç., Catal. *maestre*, Sp. *maestro*, Port. *mestre*. L. *magister* stands for **mag-is-teros*, which is formed with double comparative suff. from the stem of L. *magnus*, 'great'. For the compar. suff. *-is* cp. L. *magis*, 'more', which is rel. to *magnus*, 'great'; for the compar. suff. **-teros* see **-ther**; for the use of the double compar. suff. in L. *magister* cp. *minister*. OHG. *meistar* (whence MHG., G. *meister*), OS. *mēstar*, OCo. *maister*, W. *meistr*, etc. are Latin loan words. See **mickle** and cp. **magnum, megalo-.** Cp. also **magisterial, magistrate, maestro, mister, mistral.**
Derivatives: *master*, tr. v., *master-ful*, adj., *master-ful-ly*, adv., *master-ful-ness*, n., *master-hood*, n., *master-ly*, adj. and adv., *master-li-ness*, n.

Sumber: Klein, Ernest. 1966: 922 & 945. A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume II. Amsterdam London New York: Elsevier Publishing Company. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Klein, Ernest., (1966: 945) berjudul '*A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume I A-K'* (Amsterdam London New York: Elsevier Publishing Company) tercetak kata '*Master*' yang pada Bahasa *Old French* berupa kata '*Maistre*' yang berarti '*Chief, head, leader*'.
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Bahasa Sumber Kata '*Administration*'

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Kata '*Menistre*' yang berasal dari Bahasa *French* berasal dari Bahasa Gaul. Pada buku karya Toynbee, Paget (1896: 1) berjudul '*A Historical Grammar of French Language from the French of Auguste Brachet'* (Oxford: The Clarendon Press) tercetak:

HISTORY OF THE FRENCH LANGUAGE.

CAESAR tells us that he found in Gaul three races, differing in speech, manners, and laws: the Belgae in the north, the Aquitani between the Garonne and the Pyrenees, and in the centre the Gallic or Celtic race. The Belgae and the Celts were in reality of the same stock, while the Aquitani were partly Iberians (that is, dwellers on the banks of the Ebro), whose language has perhaps survived in the Basque or *Euskarian* tongue.

Thus then almost all the soil of France was occupied by Celts, who were so named from one of their most important confederations; they were men tall and fair, eager for excitement and noise, men whose one ambition was to fight well and to speak well. 'The Gauls,' says Cato the Elder, 'give themselves passionately to two things, debate of arms and debate of speech.' Their civilization, which was fairly advanced in point of industry and agriculture, and was an example of an original and interesting political organization, might have developed into a condition of things yet more important, had it not been cut short and rendered powerless by the Roman conquest[1]. For how many ages did they inhabit Gaul?

[1] It may be stated in passing that the stone monuments called *Celtic* in France (dol-men, men-hir, &c.) clearly do not come from the Celts; nor had these so-styled *Druidic* stones the slightest relation to the Druids. Worsaae in Denmark and Prosper Mérimée in France have proved that

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Sumber: Toynbee, Paget. 1896. A Historical Grammar of French Language from the French of Auguste Brachet. Oxford: The Clarendon Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Merunut pemikiran perkataan Meyer yang tercetak pada buku karya Toynbee, Paget (1896: 9) berjudul '*A Historical Grammar of French Language from the French of Auguste Brachet'* (Oxford: The Clarendon Press) terbaca bahwa '... *the mistress of Gaul, ready to be the mother of French language* '. Kutipannya tergambar seperti ini:

Though mined by its fiscal extravagances, the Empire yet survived some years, owing to the power of its administration, and the strength which is inherent in every regular organization. At last, however, its final hour arrived; the Franks, Burgundians, Alans, Visigoths, fell on it, and overthrew with ease the great image whose feet were of clay. The monument which Caesar had erected fell less than five centuries after his death. In the crash, administration, law, aristocracy, letters, all perished, and with them the literary Latin[1] which they had employed. It had been born with

[1] M. Meyer says well that 'the invasion of the Barbarians irrevocably fixed the gulf between these two idioms, between the common Latin, the mistress of Gaul, ready to be the mother of the French language, and the literary Latin, a dead language, used only by the learned, and destined to have no influence in the formation of modern languages. This Latin was kept up by Gregory of Tours, Fredegarius, the literary renaissance under

Sumber: Toynbee, Paget. 1896: 9. Historical Grammar of French Language from the French of Auguste Brachet. Oxford: The Clarendon Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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Bahasa Gaul yang digunakan bangsa *Celtic* dan bahasa-bahasa lainnya yakni *Greek, Latin, Slavonic,* maupun *Sanskrit* merupakan cabang dari Bahasa *Aryan*. Pada buku karya Toynbee, Paget (1896: 2) berjudul '*A Historical Grammar of French Language from the French of Auguste Brachet'* (Oxford: The Clarendon Press) tercetak:

these monuments belong to a more ancient period of human life, and that no Indo-Germanic peoples have ever built in that manner. These monuments are also to be met with throughout the north of Africa, and in the extreme north of Europe as well as in its western districts.

[1] On the other hand, philology has been able to prove with certainty whence they came and to what race they belonged. By a comparison of the Celtic, Greek, Latin, Slavonic, Gothic, and Sanskrit languages, the learned have shown that these tongues are six branches of one trunk, the ***Aryan***, a language which has now disappeared, but was spoken thousands of years ago on the banks of the Oxus ; and as the relation of languages proves the relation of races, so it is certain that between the fortieth and the twentieth century before our era, the Aryans quitted Bactria and the plains of Central Asia and came towards Europe, and by the separation of their principal tribes, formed the Celtic, Germanic, Slavic, Greek, and Latin peoples. Thus the fact that their speech is one of the Indo-European languages has revealed to us what is the true origin of the Gauls.

Sumber: Toynbee, Paget. 1896: 2. Historical Grammar of French Language from the French of Auguste Brachet. Oxford: The Clarendon Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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The Intrinsic Nature

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Etimologi Administrasi

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Berbagai bentuk kata '*administration*' yang berbeda-beda termasuk beberapa modifikasinya dapat ditelusuri melalui *etymology*. Pada buku karya Grimshaw, William (1826: Lembar ke-93) berjudul '*An Etymological Dictionary and Expositor of the English Language. Second Edition*' (Philadelphia: Printed for John Grigg) tercetak '*Etymology: ... the different sorts of words and their various modifications'*

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Minister

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Minister merupakan *an agent,* yakni seseorang yang tindakannya dibawah pengawasan orang lain. Pada buku karya Grimshaw, William (1826: Lembar ke-146) berjudul '*An Etymological Dictionary and Expositor of the English Language. Second Edition*' (Philadelphia: Printed for John Grigg) tercetak '*Minister. s. An agent; one who acts under another'* yang terkutip berupa gambar ini:

MINISTER. *s.* An agent ; one who acts *under* another ; a clergyman, or high civil officer. L. *minister,* a servant, or assistant: *minor,* less.
MINISTER. *v.* To attend ; to manage ; to perform ; to supply. L. *ministro.* See the noun.
MINOR. *adj.* Petty ; less ; smaller. L. *minor,* less.
MINOR. *s.* One under the age when he can lawfully manage his own affairs. L. *minor,* less, or younger.
MINOTAUR. *s.* A monster imagined by the poets, half man and half bull. L. *Minotaurus :* from *Minos,* a king of Crete, and *taurus,* a bull. See Ovid's Metamorphoses.
MINUS. *s.* Less ; insufficient ; in electricity, opposed to *plus.* L. *minus,* less.
MINUTE'. *adj.* Small ; precise. L. *minutus,* diminished ; from *minuo,* to lessen.

Sumber: Grimshaw, William (1826: Lembar ke-146) berjudul 'An Etymological Dictionary and Expositor of the English Language. Second Edition' (Philadelphia: Printed for John Grigg. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran tulisan Grimshaw ini, *minister* merupakan pembantu (*a servant, or assistant* yang diterjemahkan dari bahasa Latin '*minister*') dan *minor* yang berarti lebih kecil (*smaller*) dan terkadang dianggap sebagai anak kecil yang sudah dapat mengurus diri sendiri (*One under the age when he can lawfully manage his own affairs*). Sebagai kata kerja, *minister* merupakan aktivitas mengelola (*to manage, to attend*), menyelenggarakan (*to perform*) maupun memenuhi kebutuhan (*to supply*) dan melayani (*to serve*). Pengertian *to manage* sama dengan *to conduct, to make tractable,* yang pada Bahasa *France* sama dengan *agir* (*to acts*) dan pada Bahasa Latin sama dengan *manus* dan *ago.*

Kata '*serve*' pada buku ini berarti bekerja untuk sesuatu atau untuk orang lain (*to work for*), melaksanakan perintah (*to attend at command*), mentaati aturan (*to obey*), memenuhi kebutuhan (*to supply*), membantu (*to aid*) maupun menggerakan (*to promote*), memuaskan (*to content or satisfied*) dan berhubungan dengan pihak lain (*to deliver or to relate*).

SERVANT. *s.* One who is under an obligation to work for another. F. *servant*: See SERVE.
SERVE. *v.* To work for; to attend at command; to obey; to supply with food or table furniture, ceremoniously; to supply; to aid; to promote; to content; to deliver, as in the case of a summons. L. *servio; servus*, a bond servant: *servo*, to keep, heed, or defend.
SERVICE. *s.* Act of serving; time of serving; public office of devotion; employment; benefit, &c. F. *service*: L. *servitium*. See SERVE.
SERVILE. *adj.* Slavish; relating to a slave; dependent; mean; fawning or cringing. L. *servilis*. See SERVE.
SERVITOR. *s.* One who acts under another; one of the lowest order in a university. F. *serviteur*. See SERVE.

Sumber: Grimshaw, William (1826: Lembar ke-217) berjudul 'An Etymological Dictionary and Expositor of the English Language. Second Edition' (Philadelphia: Printed for John Grigg. Gambar disajikan oleh Levri Ardiansyah (2017).

Kata '*Minister*' yang bersinonim dengan kata '*Agent*' juga tercetak pada buku karya Crabb, George., (1882: 614) berjudul '*English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers to which is Now Added an Index to the Words. New Edition with Additions and Corrections'* (New York: Harper & Brothers, Publishers) yakni:

MINISTER, AGENT.

MINISTER comes from *minus*, less, as *magister* comes from *magis*, more; the one being less, and the other more, than others: the *minister*, therefore, is literally one that acts in a subordinate capacity; and the AGENT (from *ago*, to act) is the one that takes the acting part: they both perform the will of another, but the *minister* performs a higher part than the *agent:* the *minister* gives his counsel, and exerts his intellectual powers in the service of another; but the *agent* executes the orders or commissions given him: a *minister* is employed by government in political affairs; an *agent* is employed by individuals in commercial and pecuniary affairs, or by government in subordinate matters: a *minister* is received at court, and serves as a representative for his government; an *agent* generally acts under the directions of the *minister* or some officer of government: ambassadors or plenipotentiaries, or the first officers of the State, are *ministers;* but those who regulate the affairs respecting prisoners, the police, and the like, are termed *agents.* A *minister* always holds a public character, and is in the service of the State; the *agent* may be only acting for another individual, as a commercial *agent*.

This sovereign by his arbitrary nod
Restrains or sends his *ministers* abroad.
BLACKMORE.

They had not the wit to send to them, in any orderly fashion, *agents* or chosen men, to tempt them or treat with them. BACON.

TO MINISTER, ADMINISTER, CONTRIBUTE.

To MINISTER, from the noun *minister*, in the sense of a servant (*v. Minister*), signifies to act in subservience to another, and may be taken either in a good, bad, or indifferent sense, as to *minister* to the spiritual wants or to *minister* to the caprices and indulgences of another when we encourage them unnecessarily. ADMINISTER, that is, to *minister* for a specific purpose, is taken in the good sense of serving another to his advantage: thus the good Samaritan *administered* to the comfort of the man who had fallen among thieves. CONTRIBUTE (*v. To conduce*) is taken in either a good or bad sense; we may *contribute* to the relief of the indigent, or we may *contribute* to the follies and vices of others. Princes are sometimes placed in the unfortunate situation, that those who should direct them in early life only *minister* to their vices by every means in their power: it is the part of the Christian to *administer* comfort to those who are in want, consolation to the afflicted, advice to those who ask for it, and require it; help to those who are feeble, and support to those who cannot uphold themselves: it is the part of all who are in high stations to *contribute* to the dissemination of religion and morality among their dependents; but there are, on the contrary, many who *contribute* to the spread of immorality, and a contempt of all sacred things, by the most pernicious example of irreligion in themselves.

Sumber: Crabb, George. 1882: 614. English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers ti which is Now Added an Index to the Words. New Edition with Additions and Corrections. New York: Harper & Brothers, Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran tulisan Crabb, George., (1882: 614) ini terbaca bahwa kata '*Minister*' berasal dari kata '*Minus*' dalam pengertian '*Less*'. Dengan pengertian ini, merunut pemikiran tulisan Crabb, George., (1882: 614) terbaca bahwa *minister* merupakan tindakan seseorang pada kapasitasnya yang *subordinate,* sedangkan *the agent* merupakan tindakan seseorang yang ikut ambil bagian, sehingga performa *the minister* lebih tinggi daripada *the agent* (*... the minister, therefore, is literally one that acts in a subordinate capacity, and the agent (from 'ago' to act) is the one that takes the acting part, ... but the minister perform a higher part than the agent...*). Selanjutnya Crabb, George., (1882: 614) memaparkan perbedaan antara *the minister* terhadap *the agent.*

Pada bukunya, Crabb, George., (1882: 614) membedakan *the minister* terhadap *to minister* dan *administer. The minister* merupakan kata benda, sedangkan *to minister* merupakan kata kerja yang berarti melakukan tindakan sebagai pembantu (*in the sense of a servant*) yakni berupa tindakan merendahkan diri terhadap orang lain (*to act in subservience to another*). Kata '*Administer*' merupakan '*to minister for spesific purpose*' yakni melayani orang lain dengan tujuan untuk mendapatkan manfaat tertentu (*serving another to his advantage*). Pada konteks sebagai *to minister* maupun *administer* ini, memiliki pengertian yang sama dengan kontribusi (*contribute*).
A new minister dipahami juga sebagai *induction.* Pada buku karya Grimshaw, William (1826: Lembar ke-20) berjudul '*An Etymological Dictionary and Expositor of the English Language. Second Edition*' (Philadelphia: Printed for John Grigg) tercetak '*Induction. s.... to a new minister'* yang terkutip berupa gambar ini:

INDUCE. *v.* To persuade; to influence; to cause. L. *induco; in,* towards, and *duco,* to lead.
INDUCTION. *s.* A term in logic, expressing a mode of argument more tedious than a syllogism; by which, from several particular propositions, we infer one general proposition. It is used also to denote the giving corporal possession of a church, to a new minister. L. *inductio;* from *in,* into, and *ductus,* p. part. of *duco,* to lead.
INDUE. *v.* To invest; to furnish. L. *induo,* to put on, or cover over.

Sumber: Grimshaw, William (1826: Lembar ke-121) berjudul 'An Etymological Dictionary and Expositor of the English Language. Second Edition' (Philadelphia: Printed for John Grigg. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Grimshaw, William (1826) berjudul '*An Etymological Dictionary and Expositor of the English Language. Second Edition*' (Philadelphia: Printed for John Grigg) ini tidak terdapat pengertian *'administration'.* Istilah '*administration*' hanya tercetak satu saja pada penjelasan tentang *stannary* yang tercetak '*Stannary. s. The stannary court, in Devonshire and Cornwall, are for the administration of justice amongst persons working or concerned in the tin mines*'.

Pada buku karya Walde, Alois (1906: 387) berjudul '*Lateinisches Etymologisches Worterbuch* (Heidelberg: Carl Winter's Universitatsbuchhandlung) tercetak kata '*Minister*' yang terurai berupa '*min-is-teros*' dengan varian kata berupa '*ministreis*' dan '*minoris*' yang berarti '*magister*' maupun '*minor*' seperti ini:

minister — minuo. 387

minister „Untergebener, Diener“, o. *minstreis* „minoris“: aus **min-is-teros*, Nachahmung von *magister*, zu *minor*.

minium „Zinnober“: span. nach Properz 2. 3. 11, vgl. auch den span. Flußnamen *Minius* (*Mineus fluvius Galliciae nomen a colore pigmenti sumpsit* ...“ Isid.), heute *Minho* (Wharton Et. lat. s. v.). Aus dem Lat. stammt ahd. *minig*, nhd. *Mennig*.

mino, *-āre* „durch Schreien und Prügel antreiben, forttreiben“ (Apul., Macr. u. s. w.; die Bed. „führen“ ist erst romanisch, Diez I, 270, Körting[2] s. v. *mino*; daher mhd. *menen* „treiben“): wohl aus *minārī* „drohen“ entwickelt („durch Drohungen in Bewegung setzen“).

Wegen des späten Auftretens des Wortes ist Vaničeks 220 Anknüpfung an lit. *minù* „trete“ (trans.), russ. *mnu* „trete“, ab. *mьnq*, *męti* „drücken“ unwahrscheinlich; unmöglich die Auffassung als „gehn machen“ zu *meo, -āre*, da *-nā-* nicht Factitiva bildet.

Sumber: Walde, Alois. 1906: 387. Lateinisches Etymologisches Worterbuch. Heidelberg: Carl Winter's Universitatsbuchhandlung Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran tulisan Walde, Alois (1906: x) pada buku ini, tercetak istilah ‘*Ministerium*’.

Pada buku karya Thomas, Joseph (1852: 162) berjudul ‘*The First Book of Etymology: Designed to Promote Precision in the Use and Facilitate the Acquisition of a Knowledge of the English Language’* (Philadelphia: E. C. & J. Biddle) tercetak pengertian *minister* sebagai ‘*a helper*’, *administer* yang merupakan ‘*to supply to; to give; to manage or rule*’ dengan pengertian *administration* yang tercetak sebagai ‘*the act of administering*’ yakni tindakan mensuplai, memberi, mengelola atau menegakan aturan, seperti ini:

Minis'ter, a servant or helper. ***Minis'tr-o, ministra't-um***, to serve, to supply.

ADMIN'ISTER—to SUPPLY TO; to give; to manage or rule.
ADMINISTRA'T*ion*—the *act of* ADMINISTERING.
MIN'ISTER—a SERVANT of the church; a clergyman; a servant or chief officer of a king.
MIN'IST*ry*—the *practice* or duty *of* a MINISTER; a body of ministers.

Mi'nor, less. ***Min'im-us***, least (from *Parvus*). ***Min'u-o, minu't-um***, to lessen or diminish.

DIMIN'ISH[a]—to lessen.
DIMINU'T*ion*—the *act of* DIMINISHING.
MIN'IAture — a picture LESS than the reality.
MIN'IMUM—(Lat.) the SMALLEST quantity or rate.
MI'NOR—(Lat.) LESS; smaller: also a person under age.
MINOR'*ity*—the *state of being* a MINOR; the smaller number.
MIN'UEND — (Lat. MINUENDUS), the number TO BE DIMINISHED.
MI'NUS—(Lat.) LESS; diminished by.
MINUTE'—LESSENED. Very small.

Sumber: Thomas, Joseph. 1852: 162. The First Book of Etymology: Designed to Promote Precision in the Use and Facilitate the Acquisition of a Knowledge of the English Language. Philadelphia: E. C. & J. Biddle. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran cetakan pada buku karya Thomas, Joseph (1852: 162) ini, tercetak istilah ‘*Ministro*’ dan ‘*Ministratum*’ yang berarti ‘*to serve, to supply*’ dan juga tercetak istilah ‘*Ministry*’ yang berarti ‘*the practice or duty of a minister*’ atau juga dimengerti sebagai ‘*a body of minister*’.
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Administer
Pada buku karya Grimshaw, William (1826: Lembar ke-20) berjudul ‘*An Etymological Dictionary and Expositor of the English Language. Second Edition*’ (Philadelphia: Printed for John Grigg) tercetak ‘*Administer. v. To give; to perform. L. administro; from ad, at, and miror, to wonder*’ yang terkutip berupa gambar ini:

ADMINISTER. *v.* To give; to perform. L. *administro.* See MINISTER.
ADMIRE. *v.* To regard with wonder, or pleasure. L. *admiror;* from *ad*, at, and *miror,* to wonder.
ADMISSIBLE. *adj.* That may be admitted. L. *admissus*, p. part. of *admitto.* See ADMIT.
ADMIT. *v.* To let in, or grant. L. *admitto;* from *ad,* into, and *mitto,* to send.
ADMIX. *v.* To mingle. L. *admixtum,* sup. of *admisceo;* comp. of *ad,* to, and *misceo,* to mix.
ADMONISH. *v.* To warn of a fault; to reprove gently. L. *admoneo;* from *ad,* to, and *moneo,* to advise.

Sumber: Grimshaw, William (1826: Lembar ke-20) berjudul ‘An Etymological Dictionary and Expositor of the English Language. Second Edition’ (Philadelphia: Printed for John Grigg. Gambar disajikan oleh Levri Ardiansyah (2017).

Ministration
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Administration

Administration as Routine Affairs of State

Merunut pemikiran tulisan Albert Schaffle yang tercetak pada buku karya Manheim, Karl (1948: 100) berjudul '*Ideology and Utopia An Introduction to the Sociology of Knowledge'* (London: Routledge & Kegan Paul Limited) terbaca bahwa administrasi merupakan *laufendes Staatsleben* yakni *"routine affairs of state"*. Kutipannya seperti ini:

> *The Austrian sociologist and statesmen, Albert Schaffle, pointed out that at any moment of socio-political life two aspects are discernible – first, a series of social events which have acquired a set pattern and recur regularly; and, second, those events which are still in the process of becoming, in which, in individual cases, decisions have to be made that give rise to new and unique situations. The first he called the "routine affairs of state" laufendes Staatsleben; the second "politics". The meaning of this distinction will be clarified by a few illustrations. When, in the accustomed life of an official, current business is disposed of in accordance with existing rules and regulations, we are, according to Schaffle, in the realm of "administration" rather than "politics". Administration is the domain where we can see exemplified what Schaffle means by "routine affairs of state"* (Manheim, Karl (1948: 100).

Pada buku karya Manheim, Karl (1954: 100) berjudul '*Ideology and Utopia An Introduction to the Sociology of Knowledge'* (New York: Harcourt, Brace & Co., Inc) tercetak seperti ini:

The Austrian sociologist and statesman, Albert Schäffle,[1] pointed out that at any moment of socio-political life two aspects are discernible—first, a series of social events which have acquired a set pattern and recur regularly ; and, second, those events which are still in the process of becoming, in which, in individual cases, decisions have to to be made that give rise to new and unique situations. The first he called the "routine affairs of state", *laufendes Staatsleben* ; the second " politics ". The meaning of this distinction will be clarified by a few illustrations. When, in the accustomed life of an official, current business is disposed of in accordance with existing rules and regulations, we are, according to Schäffle, in the realm of " administration " rather than of " politics ". Administration is the domain where we can see exemplified what Schäffle means by " routine affairs of state ". Wherever each new case may be taken care of in a prescribed manner, we are faced not with politics but with the settled and recurrent side of social life. Schäffle uses an illuminating expression from the field of administration itself to give point to his distinction. For such cases as can be settled by merely consulting an established rule, i.e. according to precedent, the German word *Schimmel*,[2] which is derived from the Latin *simile* is used, signifying that the case in hand is to be disposed of in a manner *similar* to precedents that already exist. We are in the realm of politics when envoys to foreign countries conclude treaties which were never made before ; when parliamentary representatives carry through new measures of taxation ; when an election campaign is waged ;

[1] Cf. Schäffle, A., " Über den wissenschaftlichen Begriff der Politik," *Zeitschrift für die gesamte Staatswissenschaften*, vol. 53 (1897).
[2] The German word *Schimmel* means " mould ". [Translator's note.]

Sumber: Manheim, Karl. 1954: 100. Ideology and Utopia An Introduction to the Sociology of Knowledge. New York: Harcourt, Brace & Co., Inc. Gambar disajikan oleh Levri Ardiansyah (2017).

Affairs are administered, business is transacted, and concerns are managed. Pada buku karya Crabb, George., (1882: 53) berjudul '*English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers to which is Now Added an Index to the Words. New Edition with Additions and Corrections'* (New York: Harper & Brothers, Publishers) tercetak:

AFFAIR, BUSINESS, CONCERN.

AFFAIR, in French *affaire*, is compounded of *af* or *ad* and *faire*, in Latin *facio*, to make or do, signifying the thing that is made, done, or that takes place for a person, or for a given purpose. BUSINESS, from *busy* (*v. Active*), signifies the thing that makes or interests a person, or with which he is busy or occupied. CONCERN, in French *concerner*, Latin *concerno*, compounded of *con* and *cerno*, to look, signifies the thing looked at, thought of, or taken part in.

An *affair* is what happens; a *business* is what busies; a *concern* is what is felt. An *affair* is general; it respects one, many, or all: every *business* and *concern* is an *affair*, though not *vice versâ*. *Business* and *concern* are personal; *business* is that which engages the attention; *concern* is that which interests the feelings, prospects, and condition, advantageously or otherwise. An *affair* is important; a *business* is serious; a *concern* momentous. The usurpation of power is an *affair* which interests a nation; the adjusting a difference is a *business* most suited to the ministers of religion; to make one's peace with one's Maker is the *concern* of every individual. *Affairs* are administered; *business* is transacted; *concerns* are managed. The *affairs* of the world are administered by a Divine Providence.

Sumber: Crabb, George. 1882: 53. English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers ti which is Now Added an Index to the Words. New Edition with Additions and Corrections. New York: Harper & Brothers, Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

A good administration is better than the best constitution

Pada buku karya Manheim, Karl (1954: 106) berjudul '*Ideology and Utopia An Introduction to the Sociology of Knowledge'* (New York: Harcourt, Brace & Co., Inc) tercetak '*A good administration is better than the best constitution*'. Kutipannya tergambarkan seperti ini:

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The exclusive concern of the military bureaucrat is military action and, if that proceeds according to plan, then all the rest of life is in order too. This mentality is reminiscent of the joke about the specialist in the medical world, who is reputed to have said: "The operation was a splendid success. Unfortunately, the patient died."

Every bureaucracy, therefore, in accord with the peculiar emphasis on its own position, tends to generalize its own experience and to overlook the fact that the realm of administration and of smoothly functioning order represents only a part of the total political reality. Bureaucratic thought does not deny the possibility of a science of politics, but regards it as identical with the science of administration. Thus irrational factors are overlooked, and when these nevertheless force themselves to the fore, they are treated as "routine matters of state". A classic expression of this standpoint is contained in a saying which originated in these circles: "A good administration is better than the best constitution." [1]

[1] Obituary of Böhlau by the jurist Bekker. *Zeitschrift der Savigny-Stiftung*. Germanist. Abtlg., vol. viii, p. vi ff.

Sumber: Manheim, Karl. 1954: 106. Ideology and Utopia An Introduction to the Sociology of Knowledge. New York: Harcourt, Brace & Co., Inc. Gambar disajikan oleh Levri Ardiansyah (2017).

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Thing, Object, Sign and Words

Words dapat terbentuk dengan interpretasi terhadap (a) sign = interpretant = hal; (b) object = symtomp, criteria; dan (c) thing = concept

Sign Makna Signifier (Penanda = makna objek = yang menandai suatu objek = bunyi yang diperdengarkan melalui ucapan memaknai dan dinyatakan berupa tulisan atau gambar)
Sign Object Signified (Petanda = bentuk objek = yang ditandai pada suatu objek melalui mental picture, Bertens, 2001: 180)
Tanda = Petanda + Penanda (Ferdinand de Saussure

Pada dasarnya, kata bersifat *arbitrair* yakni semena-mena (Saussure) dengan tidak mempedulikan ada tidaknya hubungan alamiah antara petanda terhadap penanda. Contohnya adalah kata 'Batu', orang tidak ada yang peduli mengapa benda keras yang terbentuk dari air yang mengeras ini dinamakan 'Batu'. Ketidakpedulian orang terhadap tanda kebahasaan berupa kata ini disebabkan karena semua orang tidak merasa perlu memikirkan apa sebabnya air yang mengeras ini dinamakan 'Batu' karena semua orang mengerti bahwa ini adalah 'Batu', suatu nama yang telah tersepakati sejak dulu kala. Demikian halnya terhadap kata '*Minus*' yang juga semena-mena hingga semua orang tidak peduli memikirkan apa sebabnya benda yang mengecil disepakati sejak dulu kala sebagai kata '*Minus*'. Termasuk saya, namun saya merasa perlu memikirkan mengapa kata '*Minus*' merupakan kata *the origin of administration.* Mengapa kata '*Administration*' yang kini memiliki pengertian yang luas dapat berasal dari kata '*Minus*'?

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Simpulan

No administration without minister.

Pertanyaan Introspektif

Akankah kita membiarkan Ilmu Administrasi tak pernah diketahui sumbernya (*unknown origin*)?.

HOW PLATO PUTS THE DIFFICULTY. 189

Socrates brings out to view the whole force of the objection, which probably had not been perceived even by Menon himself. He says, 'I understand you, O Menon; but, pray, are you aware of what a very stubborn question you have raised? Methinks the import of your words is simply this, that a man can make no investigation of any kind, either about what he knows or about what he does not know. In fact, if he already knows it investigation will be needless, and if he does not know it investigation will be impossible, since he does not know what to investigate about.' [1]

The difficulty was indeed a most serious one, and whoever considers it attentively will not fail to perceive that in every investigation it is necessary that the thing inquired about should be in part known and in part unknown. I say *the thing should be in part known*, since if we had no knowledge of it whatever, it would not exist for us, and therefore could not form the subject of our investigation. And I say *it should be in part unknown*; for if we knew it fully there would be no sense in our seeking to know it.

Sumber: Serbati, Antonio Rosmini. 1883: 189. The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

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Berdasarkan etimologi, kata yang pertama kali dipahami masyarakat sebagai administrasi adalah *minister* yang digunakan pada abad ke-12 oleh masyarakat *Old French* dengan pengertian sebagai pembantu, pelayan rumah tangga, petugas tata usaha, dan pemusik. *Administer* adalah kata kerjanya. Barulah pada abad ke-13, kata *minister* digunakan masyarakat Latin dalam pengertian sebagai 'orang yang memiliki kewenangan untuk memberi perintah' dan satu abad kemudian, baru muncul kata *administrare* yang berarti mengelola, menata, dan mengendalikan. Pada awal abad ke-14, kata *minister* lebih banyak digunakan masyarakat *Old French* dalam pengertian yang religius yaitu pelayan doa atau petugas ritual. Dengan demikian kata *minister* atau *administer* berkembang berdasarkan sistematika: (1) *to serve;* (2) *to manage* dan (3) *to control.*

Penelusuran Pengertian Kata "Administration" berdasarkan Etimologi (1)

minister (n.) 12c. "servant, valet, member of a household staff, administrator, musician, minstrel" from Old French menistre, c. 1300, "one who acts upon the authority of another," from Latin minister (genitive ministri) "inferior, servant, priest's assistant" (in Medieval Latin, "priest"), from minus, minor "less," hence "subordinate," (see minus) + comparative suffix *-teros. Formed on model of magister. early 14c, meaning "priest" is attested in English. Political sense of "high officer of the state" is attested from 1620s, from notion of "service to the crown.

administer (v.) 12c., from Old French amenistrer "help, aid, be of service to" (12c., Modern French administrer, the -d- restored 16c.), late 14c., administren, aministren "to manage as a steward," and directly from Latin administrare "to help, assist; manage, control, guide, superintend; rule, direct," from ad- "to" (see ad-) + ministrare "serve" (see minister (v.).
Used of medicine, etc., "to give," from 1540s. Related: Administered; administering.

minister (v.) early 14c., "to perform religious rites, provide religious services;" mid-14c., "to serve (food or drink);" late 14c. "render service or aid," from Old French menistrer "to serve, be of service, administer, attend, wait on," and directly from Latin ministrare "to serve, attend, wait upon" (see minister (n.)). Related: Ministered; ministering.

justify (v.) c. 1300, "to administer justice;" late 14c., "to show (something) to be just or right," from Old French justifiier "submit to court proceedings" (12c.), from Late Latin iustificare "act justly toward; make just," from Latin iustificus "dealing justly, righteous," from iustus "just" (see just (adj.)) + root of facere "to do" (see factitious). Meaning "declare to be innocent or blameless" is from 1520s. Of circumstances, "to afford justification," from 1630s. Meaning "to make exact" (now largely restricted to typesetting) is from 1550s. Related: Justified; justifier; justifying.

judge (n.) mid-14c., "public officer appointed to administer the law" (early 13c. as a surname), also judge-man; from Old French juge, from Latin iudex "one who declares the law" (source also of Spanish juez, Italian giudice; see judge (v.). Extended from late 14c. to persons to decide any sort of contest; from 1550s as "one qualified to pronounce opinion." In Jewish history, it refers to a war leader vested with temporary power (as in Book of Judges), from Latin iudex being used to translate Hebrew shophet.

Sumber: ONLINE ETYMOLOGY DICTIONARY

Kata *administration* pertama kali digunakan masyarakat Latin pada akhir abad ke-14 yaitu *administrationem* yang berarti menolong (*help*), bekerjasama (*cooperation*) dan mengelola (*management*) yang terkandung juga didalamnya pengertian *administrationem* sebagai dispensasi.

Penelusuran Pengertian Kata "Administration" berdasarkan Etimologi (2)

ready (v.) early 13c., "to administer;" c. 1300, "to take aim;" mid-14c., "to prepare, make ready," from ready (adj.). Related: Readied; readying.

administration (n.) mid-14c., "act of giving or dispensing;" late 14c., "management, act of administering," from Latin administrationem (nominative administratio) "aid, help, cooperation; direction, management," noun of action from past participle stem of administrare (see administer).
Early 15c. as "management of a deceased person's estate." Meaning "the government" is attested from 1731 in British usage. Meaning "a U.S. president's period in office" is first recorded 1796 in writings of George Washington.

dispensation (n.) late 14c., from Old French despensacion (12c., Modern French dispensation), or directly from Latin dispensationem (nominative dispensatio) "management, charge," noun of action from past participle stem of dispensare "disburse, administer, distribute (by weight)" (see dispense). Theological sense is from the use of the word to translate Greek oikonomoia "office, method of administration."

dispenser (n.) c. 1400, "one who administers" (a household, etc.), c. 1200 in surnames, from Anglo-French dispensour, Old French despenseor, from Latin dispensatorem, agent noun from dispensare "disburse, administer, distribute (by weight)" (see dispense). Meaning "a container that dispenses in fixed measure" is from 1918.

diocese (n.) early 14c., from Old French diocese (13c., Modern French diocèse), from Late Latin diocesis "a governor's jurisdiction," later, "a bishop's jurisdiction," from Greek dioikesis "government, administration; province," originally "economy, housekeeping," from dioikein "control, govern, administer, manage a house," from dia- "thoroughly" (see dia-) + oikos "house" (see villa).

Sumber: ONLINE ETYMOLOGY DICTIONARY

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Penelusuran Pengertian Kata "Administration" berdasarkan Etimologi (3)

administrator (n.) mid-15c., from Middle French administrateur or directly from Latin administrator "a manager, conductor," agent noun from past participle stem of administrare (see administer). Estate sense is earliest. For ending, see -er.

administrate (v.) 1630s, from Latin administratus, past participle of administrare (see administer). In modern use a back-formation from administration. Related: Administrated; administrating.

administrative (adj.) 1731, from Latin administrativus, from past participle stem of administrare (see administer). Related: Administratively.

Sumber: ONLINE ETYMOLOGY DICTIONARY

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Penelusuran Pengertian Kata "Minister" berdasarkan Etimologi

ministry (n.) late 14c., "function of a priest," from Old French menistere "service, ministry; position, post, employment," and directly from Latin ministerium "office, service, attendance, ministry," from minister (see minister (n.)). Began to be used 1916 as name of certain departments in British government.

minstrel (n.) early 13c., from Old French menestrel "entertainer, poet, musician; servant, workman; good-for-nothing, rogue," from Medieval Latin ministralis "servant, jester, singer," from Late Latin ministerialem (nominative ministerialis) "imperial household officer, one having an official duty," from ministerialis (adj.) "ministerial," from Latin ministerium (see ministry). The connecting notion is via the jester, etc., as a court position.
Specific sense of "musician" developed in Old French, but in English until 16c. the word was used of anyone (singers, storytellers, jugglers, buffoons) whose profession was to entertain patrons. Only in 18c. was the word limited, in a historical sense, to "medieval singer of heroic or lyric poetry who accompanied himself on a stringed instrument." Reference to blackface music acts in U.S. is from 1843.

ministerial (adj.) 1560s, of religion; 1650s, of state; in some uses from Middle French ministériel and directly from Medieval Latin ministerialis "pertaining to service, of a minister," from Latin ministerium (see ministry); in some cases probably directly from minister or ministry.

ministerium (n.) "ordained ministers of a church district," 1881, from Latin ministerium (see ministry).

mystery (n.2) "handicraft, trade, art" (archaic), late 14c., from Medieval Latin misterium, alteration of Latin ministerium "service, occupation, office, ministry" (see ministry), influenced in form by Medieval Latin mysterium (see mystery (n.1)) and in sense by maistrie "mastery." Now only in mystery play, in reference to the medieval performances, which often were staged by members of craft guilds. The two senses of mystery formed a common pun in (secular) Tudor theater.

Sumber: ONLINE ETYMOLOGY DICTIONARY

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Penelusuran Pengertian Kata "Minister" berdasarkan Etimologi

clerk (n.) "man ordained in the ministry," c. 1200, from Old English cleric and Old French clerc "clergyman, priest; scholar, student," both from Church Latin clericus "a priest," noun use of adjective meaning "priestly, belonging to the clerus" (see cleric). Modern bureaucratic usage is a reminder of the dark ages when clergy alone could read and write and were employed for that skill by secular authorities. In late Old English the word can mean "king's scribe; keeper of accounts;" by c. 1200 clerk took on a secondary sense in Middle English (as the cognate word did in Old French) of "anyone who can read or write." This led to the sense "assistant in a business" (c. 1500), originally a keeper of accounts, later, especially in American English, "a retail salesman" (1790). Related: Clerkship.

cleric (n.) 1620s (also in early use as an adjective), from Church Latin clericus "clergyman, priest," noun use of adjective meaning "priestly, belonging to the clerus;" from Ecclesiastical Greek klerikos "pertaining to an inheritance," but in Greek Christian jargon by 2c., "of the clergy, belonging to the clergy," as opposed to the laity; from kleros "a lot, allotment; piece of land; heritage, inheritance," originally "a shard or wood chip used in casting lots," related to klan "to break" (see clastic). Kleros was used by early Greek Christians for matters relating to ministry, based on Deut. xviii:2 reference to Levites as temple assistants: "Therefore shall they have no inheritance among their brethren: the Lord is their inheritance," kleros being used as a translation of Hebrew nahalah "inheritance, lot." Or else it is from the use of the word in Acts i:17. A word taken up in English after clerk (n.) shifted to its modern meaning.

power (n.) c. 1300, "ability; ability to act or do; strength, vigor, might," especially in battle; "efficacy; control, mastery, lordship, dominion; legal power or authority; authorization; military force, an army," from Anglo-French pouair, Old French povoir, noun use of the infinitive, "to be able," earlier podir (9c.), from Vulgar Latin *potere, from Latin potis "powerful" (see potent). Whatever some hypocritical ministers of government may say about it, power is the greatest of all pleasures. It seems to me that only love can beat it, and love is a happy illness that can't be picked up as easily as a Ministry. [Stendhal "de l'Amour," 1822]. Meaning "one who has power" is late 14c. Meaning "specific ability or capacity" is from early 15c. Meaning "a state or nation with regard to international authority or influence" [OED] is from 1726. Used for "a large number of" from 1660s. Meaning "energy available for work is from 1727. Sense of "electrical supply" is from 1896. Phrase the powers that be is from Rom. xiii:1. As a statement wishing good luck, more power to (someone) is recorded from 1842. A power play in ice hockey so called by 1940. Power failure is from 1911; power steering from 1921.

Sumber: ONLINE ETYMOLOGY DICTIONARY

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serve

serve (v.)	late 12c., "to render habitual obedience to," also "minister, give aid, give help," from Old French servir "to do duty toward, show devotion to; set table, serve at table; offer, provide with," from Latin servire "be a servant, be in service, be enslaved;" figuratively "be devoted; be governed by; comply with; conform; flatter," originally "be a slave," related to servus "slave," perhaps from Etruscan (compare Etruscan proper names Servi, Serve, Latinized as Servius). By c. 1200 also as "to be in the service of, perform a service for; attend upon, be personal servant to; be a slave; owe allegiance to; officiate at Mass or other religious rites;" from early 13c. as "set food at table;" mid-14c. as "to wait on (customers)." From late 14c. as "treat (someone or something) in some fashion." To serve (someone) right "to treat as he deserves" is recorded from 1580s. He no schuld neuer wond To seruen him fro fot to hond ["Amis and Amiloun," c. 1330] Sense of "be useful, be beneficial, be suitable for a purpose or function" is from early 14c.; that of "take the place or meet the needs of, be equal to the task" is from late 14c.; that of "suffice" is from mid-15c. Meaning "render active military service" is from 1510s. Sporting sense, in tennis, badminton, etc., first recorded 1580s. Legal sense "present" (a writ, warrant,etc.), "give legal notice of" is from early 15c.
server (n.)	late 14c., agent noun from serve (v.). Computer sense by 1992.
served (adj.)	"found guilty, convicted; ordered to be punished or transported; beaten," 1811, slang past participle adjective from serve (v.).
reserve (v.)	mid-14c., from Old French reserver "set aside, withhold" (12c.) and directly from Latin reservare "keep back, save up; retain, preserve," from re- "back" (see re-) + servare "to keep, save, preserve, protect" (see observe). Meaning "to book" is from 1935. Related: Reserved; reserving.
reserved (adj.)	"guarded" (in manner), c. 1600, past participle adjective from reserve (v.). Of seats, tables from 1858.
reserve (n.)	"something stored up," 1610s, from reserve (v.) or from French réserve, a Middle French back-formation from reserver. Meaning "self-imposed restraint on freedom of words or actions; habit of keeping back the feelings" is from 1650s.
serf (n.)	late 15c., "servant, serving-man, slave," from Old French serf "vassal, servant, slave" (12c.), from Latin servum (nominative servus) "slave" (see serve). Fallen from use in original sense by 18c. Meaning "lowest class of cultivators of the soil in continental European countries" is from 1610s. Use by modern writers with reference to medieval Europeans first recorded 1761 (contemporary Anglo-Latin records used nativus, villanus, or servus).

Sumber: ONLINE ETYMOLOGY DICTIONARY

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serve (2)

servile (adj.)	late 14c., from Latin servilis "of a slave" (as in Servile Wars, name given to the slave revolts in the late Roman Republic), also "slavish, servile," from servus "slave" (see serve (v.)). Earliest sense was legal, servile work being forbidden on the Sabbath; sense of "cringing, fawning" first recorded c. 1600.
servant (n.)	c. 1200, "personal or domestic attendant," from Old French servant "servant; foot-soldier," noun use of servant "serving, waiting," present participle of servir "to attend, wait upon" (see serve (v.)). Meaning "professed lover, one devoted to the service of a lady" is from mid-14c. In North American colonies and U.S., the usual designation for "slave" 17c.-18c. (in 14c.-15c. and later in Biblical translations the word often was used to render Latin servus, Greek doulos "slave"). Public servant is attested from 1670s.
service (n.1)	c. 1100, "celebration of public worship," from Old French servise "act of homage; servitude; service at table; Mass, church ceremony," from Latin servitium "slavery, condition of a slave, servitude," also "slaves collectively," from servus "slave" (see serve (v.)). Meaning "act of serving, occupation of an attendant servant" is attested from c. 1200, as is that of "assistance, help; a helpful act." From c. 1300 as "provision of food; sequence of dishes served in a meal;" from late 14c. as "service at table, attendance during a meal." Meaning "the furniture of the table" (tea service, etc.) is from mid-15c. Meanings "state of being bound to undertake tasks for someone or at someone's direction; labor performed or undertaken for another" are mid-13c. Sense of "service or employment in a court or administration" is from c. 1300, as is that of "military service (especially by a knight); employment as a soldier;" hence "the military as an occupation" (1706). Also in Middle English "sexual intercourse, conjugal relations" (mid-15c.; service of Venus, or flesh's service). Service industry (as distinct from production) attested from 1938. A service station originally was a gas stop that also repaired cars.
sergeant (n.)	c. 1200, "servant," from Old French sergent, serjant "(domestic) servant, valet; court official; soldier," from Medieval Latin servientum (nominative serviens) "servant, vassal, soldier" (in Late Latin "public official"), from Latin servientem "serving," present participle of servire "to serve" (see serve (v.)); cognate with Spanish sirviente, Italian servente; a twin of servant, and 16c. writers sometimes use the two words interchangeably. Specific sense of "military servant" is attested from late 13c.; that of "officer whose duty is to enforce judgments of a tribunal or legislative body" is from c. 1300 (sergeant at arms is attested from late 14c.). Meaning "non-commissioned military officer" first recorded 1540s. Originally a much more important rank than presently. As a police rank, in Great Britain from 1839. Middle English alternative spelling serjeant (from Old French) was retained in Britain in special use as title of a superior order of barristers (c. 1300, from legal Latin serviens ad legem, "one who serves (the king) in matters of law"), from which Common Law judges were chosen; also used of certain other officers of the royal household. sergeant-major is from 1570s. The sergeant-fish (1871) so-called for lateral markings resembling a sergeant's stripes. Related: Sergeancy.

Sumber: ONLINE ETYMOLOGY DICTIONARY

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a

serve (2)

samurai (n.) 1727, from Japanese samurai "warrior, knight," originally the military retainer of the daimio, variant of saburai, nominal form of sabura(h)u "to be in attendance, to serve."

minister (v.) early 14c., "to perform religious rites, provide religious services;" mid-14c., "to serve (food or drink);" late 14c. "render service or aid," from Old French menistrer "to serve, be of service, administer, attend, wait on," and directly from Latin ministrare "to serve, attend, wait upon" (see minister (n.)). Related: Ministered; ministering.

minestrone (n.) Italian vegetable soup, 1871, from Italian minestrone, with augmentative suffix -one + minestra "soup, pottage," literally "that which is served," from minestrare "to serve, to prepare (soup, etc.)," from Latin ministrare (see minister (v.)).

ministration (n.) mid-14c., "the action of ministering or serving," from Old French ministration or directly from Latin ministrationem (nominative ministratio), noun of action from past participle stem of ministrare "to serve" (see minister (v.)).

magistrate (n.) late 14c., "civil officer in charge of administering laws," from Old French magistrat, from Latin magistratus "a magistrate, public functionary," originally "magisterial rank or office," from magistrare "serve as a magistrate," from magister "chief, director" (see master). Related: Magistracy.

merit (v.) late 15c., "to be entitled to," from Middle French meriter (Modern French mériter), from merite (n.), or directly from Latin meritare "to earn, yield," frequentative of mereri "to earn (money);" also "to serve as a soldier" (see merit (n.)). Related: Merited; meriting.

obey (v.) late 13c., from Old French obeir "obey, be obedient, do one's duty" (12c.), from Latin obedire, oboedire "obey, be subject, serve; pay attention to, give ear," literally "listen to," from ob "to" (see ob-) + audire "listen, hear" (see audience). Same sense development is in cognate Old English hiersumnian. Related: Obeyed; obeying.

administer (v.) late 14c., administren, aministren "to manage as a steward," from Old French amenistrer "help, aid, be of service to" (12c., Modern French administer, the -d- restored 16c.), and directly from Latin administrare "to help, assist; manage, control, guide, superintend; rule, direct," from ad- "to" (see ad-) + ministrare "serve" (see minister (v.)). Used of medicine, etc., "to give," from 1540s. Related: Administered; administering.

Sumber: ONLINE ETYMOLOGY DICTIONARY

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serve (3)

antonym (n.) 1867, coined to serve as opposite of synonym, from Greek anti- "equal to, instead of, opposite" (see anti-) + -onym "name" (see name (n.)). Perhaps introduced to English in the book "Synonyms and Antonyms" (1867) by the Ven. C.J. Smith, M.A.
UNDER the head of Synonyms and Antonyms, Archdeacon Smith arranges words which form an antithesis to one another. The word "antonym" is, we believe, a new formation but useful. ["Journal of Sacred Literature," July 1867]
French antonyme (1842), German antonym (by 1859) are older. The un-Greek alternative counterterm has been left to fade.

garnish (v.) late 14c., "to decorate, adorn, beautify," also in Middle English "equip (a place) for defense; arm (oneself) for battle; prepare to defend," from Old French garniss-, present participle stem of garnir "provide, furnish; fortify, reinforce" (11c.), from Frankish *warnjan, from Proto-Germanic *warnon "be cautious, guard, provide for" (cognates: Old High German warnon "to take heed," Old English warnian "to take warning, beware;" see weir, and compare warn). Sense evolution is from "arm oneself" to "fit out" to "embellish," which was the earliest meaning in English. Culinary sense of "to decorate a dish for the table" predominated after c. 1700. Older meaning survives in legal sense of "to warn or serve notice of attachment of funds" (1570s). Related: Garnished; garnishing.

cadet (n.) c. 1610, "younger son or brother," from French cadet "military student officer," noun use of adjective, "younger" (15c.), from Gascon capdet "captain, chief, youth of a noble family," from Late Latin capitellum, literally "little chief," hence, "inferior head of a family," diminutive of Latin caput "head" (see capitulum). "The eldest son being regarded as the first head of the family, the second son the cadet, or little head" [Kitchin].
Apparently younger sons from Gascon noble families were sent to French court to serve as officers, which gave the word its military meaning. In English, the meaning "gentleman entering the military as a profession" is from 1650s, and that of "student at a military college" is from 1775.

help (v.) Old English helpan "help, support, succor; benefit, do good to; cure, amend" (transitive, class III strong verb; past tense healp, past participle holpen), from Proto-Germanic *helpan (cognates: Old Norse hjalpa, Old Frisian helpa, Middle Dutch and Dutch helpen, Old High German helfan, German helfen), from PIE root *kelb- "to help" (cognates: Lithuanian selpiu "to support, help").
Intransitive sense, "afford aid or assistance," is from early 13c. Recorded as a cry of distress from late 14c. Sense of "serve someone with food at table" (1680s) is translated from French servir "to help, stead, avail," and led to helping "portion of food." Help yourself as an invitation, in reference to food, etc., is from 1894. Related: Helped (c. 1300). The Middle English past participle holpen survives in biblical and U.S. dialectal use.

Sumber: ONLINE ETYMOLOGY DICTIONARY

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serve (4)

wait (v.)

c. 1200, "to watch with hostile intent, lie in wait for, plot against," from Anglo-French and Old North French waitier "to watch" (Old French gaitier "defend, watch out, be on one's guard; lie in wait for;" Modern French guetter), from Frankish *wahton or another Germanic source, from Proto-Germanic *waht- (cognates: Dutch wacht "a watching," Old High German wahten, German wachten "to watch, to guard;" Old High German wahhon "to watch, be awake," Old English wacian "to be awake;" see wake (v.)). General sense of "remain in some place" is from late 14c.; that of "to see to it that something occurs" is late 14c. Meaning "to stand by in attendance on" is late 14c.; specific sense of "serve as an attendant at a table" is from 1560s. Related: Waited; waiting.

To wait (something) out "endure a period of waiting" is recorded from 1849. Waiting room is attested from 1680s. Waiting list is recorded from 1841; the verb wait-list "to put (someone) on a waiting list" is recorded from 1960. Waiting game is recorded from 1835, originally in horse-racing.

When speed, not stoutness, is the best of a horse, quite a contrary system is practised. With such a horse, the jockey plays a waiting game; that is, he carefully nurses him through the race, so as not to distress him by overpacing him; as the finish approaches, he creeps up to his horses by degrees, but does not quit them to go in front till he sees that the pace has made them "safe," -- when he lets loose and wins. [James Christie Whyte, "History of the British Turf," London, 1840]

slave (n.)

late 13c., "person who is the chattel or property of another," from Old French esclave (13c.), from Medieval Latin Sclavus "slave" (source also of Italian schiavo, French esclave, Spanish esclavo), originally "Slav" (see Slav); so used in this secondary sense because of the many Slavs sold into slavery by conquering peoples.

This sense development arose in the consequence of the wars waged by Otto the Great and his successors against the Slavs, a great number of whom they took captive and sold into slavery. [Klein]

Meaning "one who has lost the power of resistance to some habit or vice" is from 1550s. Applied to devices from 1904, especially those which are controlled by others (compare slave jib in sailing, similarly of locomotives, flash bulbs, amplifiers). Slave-driver is attested from 1807; extended sense of "cruel or exacting task-master" is by 1854. Slave state in U.S. history is from 1812. Slave-trade is attested from 1734.

Old English Wealh "Briton" also began to be used in the sense of "serf, slave" c.850; and Sanskrit dasa-, which can mean "slave," apparently is connected to dasyu- "pre-Aryan inhabitant of India." Grose's dictionary (1785) has under Negroe "A black-a-moor; figuratively used for a slave," without regard to race. More common Old English words for slave were þeow (related to þeowian "to serve") and þræl (see thrall). The Slavic words for "slave" (Russian rab, Serbo-Croatian rob, Old Church Slavonic rabu) are from Old Slavic *orbu, from the PIE root *orbh- (also source of orphan), the ground sense of which seems to be "thing that changes allegiance" (in the case of the slave, from himself to his master). The Slavic word is also the source of robot.

restaurant (n.)

1821, from French restaurant "a restaurant," originally "food that restores," noun use of present participle of restaurer "to restore or refresh," from Old French restorer (see restore).

Sumber: ONLINE ETYMOLOGY DICTIONARY

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Pada buku karya Ardiansyah, Levri (2017: 503) berjudul '*Earth and the Laws of Association*' tercetak '***Minor and Major'*** terbaca bahwa *minor* yang dipersepsi sebagai *negative numbers* merupakan elemen yang mendahului nol Pada buku karya Meschkowski, Herbert (1968: 53) berjudul '*Introduction to Modern Mathematics'* (London: George G. Harrap & Co. Ltd) tercetak '*The numbers x < 0 are called negative numbers*' yang merupakan elemen mendahului nol (*elements preceding zero)* seperti terbaca pada kutipan berupa gambar ini:

In order to define the difference of two numbers *without restriction* it is necessary to extend the range of the (natural) numbers. To do this we have only to go back to the set Z of integers defined in III 1. In this set, which was specified by the axioms A_1, A_2 and A_3, we chose an arbitrary element as the number zero (0) and the following elements in the given ordering as the natural numbers 1, 2, 3, ... We shall now give names to the elements *preceding* zero. For the predecessor $'0$ of the number 0 we write -1, for $''0$ we write -2, and so on. Hence the 'pearls' of the string of Fig. 11 have been assigned names as shown in Fig. 12. The numbers $x < 0$ are called *negative numbers.*[1)]

For negative numbers the following ordering obviously holds

$$(-m) < (-n) \quad \text{if} \quad n < m \tag{27}$$
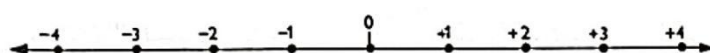
FIG. 12.

[1)] Correspondingly the *natural* numbers are also called *positive* numbers.

Sumber: Meschkowski, Herbert. 1968: 53. Introduction to Modern Mathematics. London: George G. Harrap & Co. Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Dengan bacaan ini, saya menjadi tahu bahwa angka merupakan elemen, yang ternyata telah dikumandangkan oleh Pythagoras of Samos (6th century B.C.) dengan simpulannya '*The elements of numbers were the elements of things*'. Simpulan ini berdasarkan temuan Pythagoras tentang instrumen musik dan *consonant sounds* bahwa '*Musical instruments that produce consonant sounds are related to one another by simple numerical ratios*'. Pada buku karya Torretti, Roberto (1978: 10) berjudul '*Philosophy of Geometry from Riemann to Poncare. Episteme. Volume 7*' (London: D. Reidel Publishing Company) tercetak:

1.0.2 *Geometry in Greek Natural Science*

Pythagoras of Samos (6th century B.C.), or one of his followers, discovered that musical instruments that produce consonant sounds are related to one another by simple numerical ratios. Encouraged by this momentous discovery, the Pythagoreans sought to establish other correspondences between numbers and natural processes. They believed, in particular, that celestial motions stood to one another in numerical relations, producing a universal consonance or 'cosmic harmony'. Since, as they observed, "all other things appeared in their whole nature to be modelled on numbers",[30] they concluded that "the elements of numbers were the elements of things".[31]

Sumber: Torretti, Roberto. 1978: 10. Philosophy of Geometry from Riemann to Poncare. Episteme. Volume 7. London: D. Reidel Publishing Company. Gambar disajikan oleh Levri Ardiansyah (2017).

Pythagoras bahkan mempelajari '*Musical Motion (Enarmonios Phora)*' (Torretti, Roberto, 1978: 13).
Baldwin, James Mark (1901: 37) berjudul '*Dictionary of Philosophy and Psychology. Volume 2'* (New York: The Macmillan Company)

Major and **Minor** (extreme, term, premise, *satz*, &c., in logic): Ger. *Ober-* and *Unter-* (*Begriff*, &c.); Fr. *majeur* and *mineur*; Ital. *maggiore* and *minore*. The subject and predicate of the conclusion of a syllogism are called the extremes (τὰ ἄκρα, by Aristotle), because they are only brought together by the agency of the third term, called, on that account, the middle term (ὁ μέσος ὅρος, Aristotle). Of the two extremes, the one that is the predicate of the conclusion is called the major extreme (τὸ μεῖζον ἄκρον, Aristotle), because in a universal affirmative proposition (the typical formal proposition) its breadth is the greater, while the subject of the conclusion is the minor extreme (τὸ ἔλαττον ἄκρον, Aristotle).

Whether the expressions major term and minor term, for the major and minor extremes, are grammatically accurate or not, they are consecrated by usage through the scholastic period. The major and minor premises are respectively those which contain the major and minor extremes. Aristotle (I. *Anal. Pr.*, ix) calls the former ἡ πρὸς τὸ μεῖζον ἄκρον πρότασις, 'the proposition about the major extreme.' (C.S.P.)

Sumber: Baldwin, James Mark. 1901: 37. Dictionary of Philosophy and Psychology Volume 2. New York: The Macmillan Company. Gambar disajikan oleh Levri Ardiansyah (2017).

Baldwin, James Mark (1901: 37) berjudul '*Dictionary of Philosophy and Psychology. Volume 2'* (New York: The Macmillan Company)

Major [Lat. *maior*, greater]: Ger. *Dur*; Fr. *majeur*; Ital. *maggiore*. One of the two fundamental scales or keys of modern music. Expressed in 'whole tones,' it runs: 1, 1, 1–2, 1, 1, 1, 1–2. Cf. MINOR, and TRIAD.

This is the natural diatonic series, represented by the series of musical tones starting from C. It corresponds to the Greek Lydian, and the ecclesiastical Tonic. Cf. Helmholtz, *Sensations of Tone*, 274.

A major interval is that form of the interval which is greater by a semitone than its corresponding minor. A major chord is a chord containing the major third above the fundamental. A major tone is one the vibration ratio of which is 8 : 9, as contrasted with the minor 9 : 10. Cf. Parry, in *Grove's Dict. of Music*, ii. 200. (E.B.T.)

Sumber: Baldwin, James Mark. 1901: 37. Dictionary of Philosophy and Psychology Volume 2. New York: The Macmillan Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Baldwin, James Mark (1901: 86) berjudul '*Dictionary of Philosophy and Psychology. Volume 2'* (New York: The Macmillan Company) tercetak

Minimum divisibile [Lat.]. The quantity which, the result of successive division, is itself indivisible. See DIVISIBILITY. (J.M.B.)

Minimum (or **Minimal**) **Sensation**: see LIMITS OF SENSATION.

Minor [Lat. *minor*, the lesser]: Ger. *Moll*; Fr. *mineur*; Ital. *minore*. One of the two fundamental scales or keys of modern music characterized by the presence of the minor third above the fundamental.

Expressed in 'whole tones,' it runs: Harmonic form: 1, 1–2, 1, 1, 1–2, 1 and 1–2, 1–2. Melodic form, ascending: 1, 1–2, 1, 1, 1, 1, 1–2; descending, 1, 1, 1–2, 1, 1, 1–2, 1. Cf. Helmholtz, *Sensations of Tone* (Eng. trans.), 274, 288; Cummings, *Rudiments of Music*, 47. For minor intervals, &c., see MAJOR. (E.B.T.)

Minor (in logic): see MAJOR AND MINOR.

Sumber: Baldwin, James Mark. 1901: 86. Dictionary of Philosophy and Psychology Volume 2. New York: The Macmillan Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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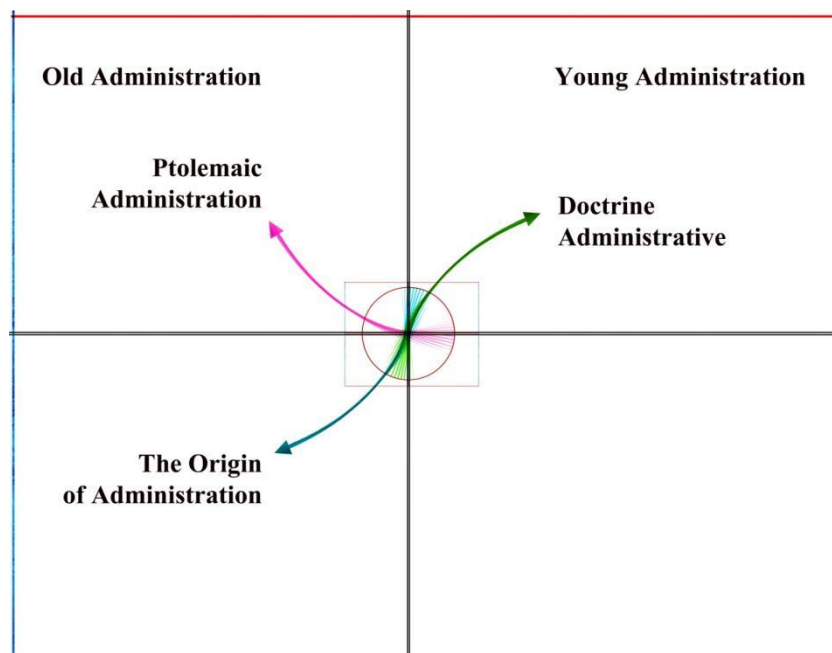
Pada buku karya Bliss, William D.P. & Binder, Rudolf M (1908: 8) berjudul '*The New Encyclopedia of Social Reform including All Social-Reform Movements and Activities, and the Economic, Industrial and Sociological Facts and Statistics of All Countries and All Subjects. New Edition'* (New York and London: Funk and Wagnalls Company) tercetak '*Administrative Nihilism*'. Kutipannya tergambar seperti ini:

ADMINISTRATIVE NIHILISM: A phrase first used by Professor Huxley in an address before the members of the Midland Institute, 1871, to describe the doctrine (which he opposed) of those who believe that the state should be limited in its functions to the protection of its subjects from aggression. The address has since been published under this name of "Administrative Nihilism." Professor Huxley quotes approvingly Locke's maxim, that "the end of government is the good of mankind," and defines the good of mankind as "the attainment by every man of all the happiness which he can enjoy without diminishing the happiness of his fellow men."

Sumber: JBliss, William D.P. & Binder, Rudolf M. 1908: 8. The New Encyclopedia of Social Reform including All Social-Reform Movements and Activities, and the Economic, Industrial and Sociological Facts and Statistics of All Countries and All Subjects. New Edition. New York and London: Funk and Wagnalls Company. Gambar disajikan oleh Levri Ardiansyah (2017).

Simpulan

*Sumber: Karya ilustrasi Levri Ardiansyah (2017).*a

The Origin of Place where Earliest Administration Existed

Administrative Habit of France before The Revolution

Para menteri menguasai bisnis yang sangat besar. Pada buku karya Tocqueville, Alexis de. 1888: 54. *The State of Society in France before the Revolution of 1789 and the Causes which Led to that Event. Third Edition. Translated by Henry Reeve.* London: John Murray, Albemarle Street tercetak '*The details of business thrown upon the Ministers are immense. Nothing is done without them, nothing except by them, and if their information is not as extensive as their powers, they are obliged to leave everything to be done by clerks, who become in reality the masters*'. Kutipannya tergambar seperti ini:

CHAPTER VI.

THE ADMINISTRATIVE HABITS OF FRANCE BEFORE THE REVOLUTION.

IT is impossible to read the letters addressed by an Intendant of one of the provinces of France, under the old monarchy, to his superiors and his subordinates, without admiring the similitude engendered by similar institutions between the administrators of those times and the administrators of our own. They seem to join hands across the abyss of the Revolution which lies between them. The same may be said of the people they govern. The power of legislation over the minds of men was never more distinctly visible.

The Ministers of the Crown had already conceived the design of taking actual cognisance of every detail of business and of regulating everything by their own authority from Paris. As time advanced and the administration became more perfect, this passion increased. Towards the end of the eighteenth century not a charitable workshop could be established in a distant province of France until the Comptroller-General himself had fixed the cost, drawn up the scheme, and chosen the site. If a poor-house was to be built the Minister must be informed of the names of the beggars who frequent it—when they arrive—when they depart. As early as the middle of the same century (in 1733) M. d'Argenson wrote—'The details of business thrown upon the Ministers are immense. Nothing is done without them, nothing except by them, and if their information is not as extensive as their powers, they are obliged to leave everything to be done by clerks, who become in reality the masters.'

Sumber: Tocqueville, Alexis de. 1888: 54. The State of Society in France before the Revolution of 1789 and the Causes which Led to that Event. Third Edition. Translated by Henry Reeve. London: John Murray, Albemarle Street. Gambar disajikan oleh Levri Ardiansyah (2017).

The economical doctrine

Kekerasan (56)

LA MÉTHODE CARTÉSIENNE 181

Ce sont ces principes qui doivent être l'objet de notre méditation : lorsque nous les posséderons assez complètement pour les voir d'une vue claire et distincte, nous saurons sans peine en faire l'application à toutes les difficultés qui se présentent, et, grâce à eux, parvenir à la solution de ces difficultés, pourvu, toutefois, que nous ayons le tact et le discernement qu'exige le maniement de principes faits pour le réel et qui doivent être constamment adaptés à la diversité du réel (1).

3° Toutefois, pour être bien sûr qu'on n'a rien négligé dans la voie qui mène du complexe au simple, du relatif à l'absolu, il faut ensuite parcourir le chemin en sens inverse et tâcher de retrouver le complexe en partant des éléments simples. Tel est le rôle de la *synthèse*, dont Descartes nous donne cet énoncé très remarquable : « Conduire par ordre mes pensées, en commençant par les objets les plus simples et les plus aisés à connaître, pour monter

(1) Nous aurons à revenir sur ce dernier point, dont l'extrême importance a été reconnue de tous les hommes d'action. Il faut se souvenir, en effet, qu'un *principe* ne doit rien avoir « de rigide ni d'absolu... On n'a presque jamais [disons : jamais] à appliquer deux fois le même principe dans des conditions identiques : il faut tenir compte des circonstances diverses et changeantes, des hommes également divers et changeants et de beaucoup d'autres éléments variables » (H. FAYOL, *Administration industrielle et générale*, Paris, Dunod et Pinat, 1917, p. 25). Le maréchal FOCH rejette pareillement les dispositifs fixes, « les formes invariables, figures, épures, schémas », parce que, dit-il, « à la guerre il n'y a que des cas particuliers ; tout y est affaire d'espèce, rien ne s'y reproduit », — bien que tout s'y enchaîne, selon une « logique des actes » et selon des « relations de causes à effets », qui permettent, qui exigent même du chef, science et méthode, c'est-à-dire observation et réalisation de l'ordre (*Principes de la guerre*, Paris, Berger-Levrault, p. 11-12, p. 264).

Sumber: Chevalier, Jacques. 1921: 181. Descartes. Paris: Librairie Plon-Nourrit. Gambar disajikan oleh Levri Ardiansyah (2017).

Napoleon, Jiwa Administrasi

Pada buku karya Cormenin, M. De (1837: 4) berjudul '*Questions de Droit Administratif. Cinquieme Edition. Tome Premier'* (Bruxelles: Societe Typographique Belge) tercetak '*... l'ame de l'administration*'. Kutipannya tergambar seperti ini:

4 DROIT ADMINISTRATIF. TIT. I. CHAP. I.

détail, la préparation des affaires contentieuses, les décrets des 11 juin et 22 juillet 1806, instituèrent la commission du contentieux et tracèrent la forme sommaire de l'instruction, du rapport et du jugement des affaires.

Sous la direction de Napoléon, qui le présidait lui-même, le conseil d'État exerçait des fonctions de conseil, de justice, de police et de législation.

Il était l'âme de l'administration, la source des lois et le flambeau de l'empire.

L'histoire du gouvernement intérieur de la France impériale, se résume dans le conseil d'État.

Conseil d'État royal.

III. Après la dissolution de l'empire, le conseil perdit ses attributions politiques qui ne pouvaient plus s'accommoder avec la responsabilité des ministres.

De législateurs, les conseillers d'État allaient être réduits au modeste rôle de donneurs d'avis.

Le pouvoir changeait de mains.

A l'omnipotence impériale succédait la responsabilité ministérielle. Les ministres à département redevinrent secrétaires d'État, et les pouvoirs délibératifs de l'administration durent rentrer sous leur direction et leur dépendance.

L'ordonnance du 29 juin 1814 qui organisa le conseil d'État royal, portait à la fois l'empreinte des souvenirs de l'ancien régime, de la crainte du conseil d'État de Napoléon, et des nécessités du système représentatif.

Les articles 2 et 3 créaient des conseillers d'État et des maîtres des requêtes ordinaires, honoraires et surnuméraires, et le Roi se réservait même d'en instituer d'église et d'épée.

L'article 5 créait cinq comités : de lé-

(1) Sous l'Empire, les sections du conseil étaient indépendantes des ministres, qu'elles contrôlaient et qui n'y assistaient jamais, quoique le *sénatus-consulte* du 18 thermidor an 10 leur en eût ouvert l'entrée. Aujourd'hui la responsabilité des ministres implique la subordination des conseillers d'État.

Sumber: Cormenin, M. De. 1837: 4. Questions de Droit Administratif. Cinquieme Edition. Tome Premier. Bruxelles: Societe Typographique Belge. Gambar disajikan oleh Levri Ardiansyah (2017).

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France Administration

Pada Britannica, The Encyclopaedia., (1910: 789) berjudul '*The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition*. *Volume X'* (Chicago: Printed by R.R. Donnelley & Sons Company) tercetak:

GOVERNMENT] FRANCE 789

Government and Administration.

Central Government.—The principles upon which the French constitution is based are representative government (by two chambers), manhood suffrage, responsibility of ministers and irresponsibility of the head of the state. Alterations or modifications of the constitution can only be effected by the National Assembly, consisting of both chambers sitting together *ad hoc.* The legislative power resides in these two chambers—the Senate and the Chamber of Deputies; the executive is vested in the president of the republic and the ministers. The members of both chambers owe their election to universal suffrage; but the Senate is not elected directly by the people and the Chamber of Deputies is.

The Chamber of Deputies, consisting of 584 members, is elected by the *scrutin d'arrondissement* (each elector voting for one deputy) for a term of four years, the conditions of election being as follows: Each arrondissement sends one deputy if its population does not exceed 100,000, and an additional deputy for every additional 100,000 inhabitants or fraction of that number. Every citizen of twenty-one years of age, unless subject to some legal disability, such as actual engagement in military service, bankruptcy or condemnation to certain punishments, has a vote, provided that he can prove a residence of six months' duration in any one town or commune. A deputy must be a French citizen, not under twenty-five years old. Each candidate must make, at least five days before the elections, a declaration setting forth in what constituency he intends to stand. He may only stand for one, and all votes given for him in any other than that specified in the declaration are void. To secure election a candidate must at the first voting poll an absolute majority and a number of votes equal to one-fourth of the number of electors. If a second poll is necessary a relative majority is sufficient.

The Senate (see below, *Law and Institutions*) is composed of 300 members who must be French citizens at least forty years of age. They are elected by the "*scrutin de liste*" for a period of nine years, and one-third of the body retires every three years. The department which is to elect a senator when a vacancy occurs is settled by lot.

Both senators and deputies receive a salary of £600 per annum. No member of a family that has reigned in France is eligible for either chamber.

Bills may be proposed either by ministers (in the name of the president of the republic), or by private members, and may be initiated in either chamber, but money-bills must be submitted in the first place to the Chamber of Deputies. Every bill is first examined by a committee, a member of which is chosen to "report" on it to the chamber, after which it must go through two readings (*délibérations*), before it is presented to the other chamber. Either house may pass a vote of no confidence in the government, and in practice the government resigns in face of the passing of such a vote by the deputies, but not if it is passed by the Senate only. The chambers usually assemble in January each year, and the ordinary session lasts not less than five months; usually it continues till July. There is an extraordinary session from October till Christmas.

The president (see below, *Law and Institutions*) is elected for seven years, by a majority of votes, by the Senate and Chamber of Deputies sitting together as the National Assembly. Any French citizen may be chosen president, no fixed age being required. The only exception to this rule is that no member of a royal family which has once reigned in France can be elected. The president receives 1,200,000 francs (£48,000) a year, half as salary, half for travelling expenses and the charges incumbent upon the official representative of the country. Both the chambers are summoned by the president, who has the power of dissolving the Chamber of Deputies with the assent of the Senate. When a change of Government occurs the president chooses a prominent parliamentarian as premier and president of the council. This personage, who himself holds a portfolio, nominates the other ministers, his choice being subject to the ratification of the chief of the state. The ministerial council (*conseil des ministres*) is presided over by the president of the republic; less formal meetings (*conseils de cabinet*) under the presidency of the premier, or even of some other minister, are also held.

The ministers, whether members of parliament or not, have the right to sit in both chambers and can address the house whenever they choose, though a minister may only vote in the chamber of which he happens to be a member. There are twelve ministries[1] comprising those of justice; finance; war; the interior; marine; colonies; public instruction and fine arts; foreign affairs; commerce and industry; agriculture; public works; and labour and public thrift. Individual ministers are responsible for all acts done in connexion with their own departments, and the body of ministers collectively is responsible for the general policy of the government.

The council of state (*conseil d'état*) is the principal council of the head of the state and his ministers, who consult it on various legislative problems, more particularly on questions of administration. It is divided for despatch of business into four sections, each of which corresponds to a group of two or three ministerial departments, and is composed of (1) 32 councillors "*en service ordinaire*" (comprising a vice-president and sectional presidents), and 19 councillors "*en service extraordinaire*," *i.e.* government officials who are deputed to watch the interests of the ministerial departments to which they belong, and in matters not concerned with those departments have a merely consultative position; (2) 32 *maîtres des requêtes*; (3) 40 auditors.

The presidency of the council of state belongs *ex officio* to the minister of justice.

The theory of "*droit administratif*" lays down the principle that an agent of the government cannot be prosecuted or sued for acts relating to his administrative functions before the ordinary tribunals. Consequently there is a special system of administrative jurisdiction for the trial of "*le contentieux administratif*" or disputes in which the administration is concerned. The council of state is the highest administrative tribunal, and includes a special "*Section du contentieux*" to deal with judicial work of this nature.

Local Government.—France is divided into 86 administrative departments (including Corsica) or 87 if the Territory of Belfort, a remnant of the Haut Rhin department, be included. These departments are subdivided into 362 arrondissements, 2911 cantons and 36,222 communes.

Departments.	Capital Towns.	Ancient Provinces.[2]
AIN	Bourg	Bourgogne (Bresse, Bugey, Valromey, Dombes).
AISNE	Laon	Île-de-France; Picardie.
ALLIER	Moulins	Bourbonnais.
ALPES-MARITIMES	Nice	"
ARDÈCHE	Privas	Languedoc (Vivarais).
ARDENNES	Mézières	Champagne.
ARIÈGE	Foix	Foix; Gascogne (Cousérans).
AUBE	Troyes	Champagne; Bourgogne.
AUDE	Carcassonne	Languedoc.
AVEYRON	Rodez	Guienne (Rouergue).

[1] The administration of posts, telegraphs and telephones is assigned to the ministry of commerce and industry or to that of public works.

[2] The province or provinces named are those out of which the department was chiefly formed.

Sumber: Garvin, J.L & Hoover, Franklin H. 1910: 789. The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume X. Cambridge, England: The encyclopaedia Britannica Company. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada Britannica, The Encyclopaedia., (1910: 790) berjudul '*The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition*. *Volume X'* (Chicago: Printed by R.R. Donnelley & Sons Company) tercetak:

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Departments.	Capital Towns.	Ancient Provinces.
BASSES-ALPES	Digne	Provence.
BASSES-PYRÉNÉES	Pau	Béarn; Gascogne (Basse-Navarre, Soule, Labourd).
BELFORT, TERRITOIRE DE	Belfort	Alsace.
BOUCHES-DU-RHÔNE	Marseilles	Provence.
CALVADOS	Caen	Normandie (Bessin, Bocage).
CANTAL	Aurillac	Auvergne.
CHARENTE	Angoulême	Angoumois; Saintonge.
CHARENTE-INFÉRIEURE	La Rochelle	Aunis; Saintonge.
CHER	Bourges	Berry; Bourbonnais.
CORRÈZE	Tulle	Limousin.
CÔTE-D'OR	Dijon	Bourgogne (Dijonnais, Auxois).
CÔTES-DU-NORD	St Brieuc	Bretagne.
CREUSE	Guéret	Marche.
DEUX-SÈVRES	Niort	Poitou.
DORDOGNE	Périgueux	Guienne (Périgord).
DOUBS	Besançon	Franche-Comté; Montbéliard.
DRÔME	Valence	Dauphiné.
EURE	Évreux	Normandie; Perche.
EURE-ET-LOIR	Chartres	Orléanais; Normandie.
FINISTÈRE	Quimper	Bretagne.
GARD	Nîmes	Languedoc.
GERS	Auch	Gascogne (Astarac, Armagnac).
GIRONDE	Bordeaux	Guienne (Bordelais, Bazadais).
HAUTE-GARONNE	Toulouse	Languedoc; Gascogne (Comminges).
HAUTE-LOIRE	Le Puy	Languedoc (Velay); Auvergne; Lyonnais.
HAUTE-MARNE	Chaumont	Champagne (Bassigny, Vallage).
HAUTES-ALPES	Gap	Dauphiné.
HAUTE-SAÔNE	Vesoul	Franche-Comté.
HAUTE-SAVOIE	Annecy	
HAUTES-PYRÉNÉES	Tarbes	Gascogne.
HAUTE-VIENNE	Limoges	Limousin; Marche.
HÉRAULT	Montpellier	Languedoc.
ILLE-ET-VILAINE	Rennes	Bretagne.
INDRE	Châteauroux	Berry.
INDRE-ET-LOIRE	Tours	Touraine.
ISÈRE	Grenoble	Dauphiné.
JURA	Lons-le-Saunier	Franche-Comté.
LANDES	Mont-de-Marsan	Gascogne (Landes, Chalosse).
LOIRE	St-Étienne	Lyonnais.
LOIRE-INFÉRIEURE	Nantes	Bretagne.
LOIRET	Orléans	Orléanais (Orléanais proper, Gâtinais, Dunois).
LOIR-ET-CHER	Blois	Orléanais.
LOT	Cahors	Guienne (Quercy).
LOT-ET-GARONNE	Agen	Guienne; Gascogne.
LOZÈRE	Mende	Languedoc (Gévaudan).
MAINE-ET-LOIRE	Angers	Anjou.
MANCHE	St-Lô	Normandie (Cotentin).
MARNE	Châlons-sur-Marne	Champagne.
MAYENNE	Laval	Maine; Anjou.
MEURTHE-ET-MOSELLE	Nancy	Lorraine; Trois-Évêchés.
MEUSE	Bar-le-Duc	Lorraine (Barrois, Verdunois).
MORBIHAN	Vannes	Bretagne.
NIÈVRE	Nevers	Nivernais; Orléanais.
NORD	Lille	Flandre; Hainaut.
OISE	Beauvais	Île-de-France.
ORNE	Alençon	Normandie; Perche.
PAS-DE-CALAIS	Arras	Artois; Picardie.
PUY-DE-DÔME	Clermont-Ferrand	Auvergne.
PYRÉNÉES-ORIENTALES	Perpignan	Roussillon; Languedoc.
RHÔNE	Lyon	Lyonnais; Beaujolais.
SAÔNE-ET-LOIRE	Mâcon	Bourgogne.
SARTHE	Le Mans	Maine; Anjou.
SAVOIE	Chambéry	
SEINE	Paris	Île-de-France.
SEINE-ET-MARNE	Melun	Île-de-France; Champagne.
SEINE-ET-OISE	Versailles	Île-de-France.
SEINE-INFÉRIEURE	Rouen	Normandie.
SOMME	Amiens	Picardie.
TARN	Albi	Languedoc (Albigeois).
TARN-ET-GARONNE	Montauban	Guienne; Gascogne; Languedoc.
VAR	Draguignan	Provence.
VAUCLUSE	Avignon	Comtat; Venaissin; Provence; Principauté d'Orange.
VENDÉE	La Roche-sur-Yon	Poitou.
VIENNE	Poitiers	Poitou; Touraine.
VOSGES	Épinal	Lorraine.
YONNE	Auxerre	Bourgogne; Champagne.
CORSE (CORSICA)	Ajaccio	Corse.

Before 1790 France was divided into thirty-three great and seven small military governments, often called provinces, which are, however, to be distinguished from the provinces formed under the feudal system. The great governments were: Alsace, Saintonge and Angoumois, Anjou, Artois, Aunis, Auvergne, Béarn and Navarre, Berry, Bourbonnais, Bourgogne (Burgundy), Bretagne (Brittany), Champagne, Dauphiné, Flandre, Foix, Franche-Comté, Guienne and Gascogne (Gascony), Île-de-France, Languedoc, Limousin, Lorraine, Lyonnais, Maine, Marche, Nivernais, Normandie, Orléanais, Picardie, Poitou, Provence, Roussillon, Touraine and Corse. The eight small governments were: Paris, Boulogne and Boulonnais, Le Havre, Sedan, Toulois, Pays Messin and Verdunois and Saumurois.

At the head of each department is a prefect, a political official nominated by the minister of the interior and appointed by the president, who acts as general agent of the government and representative of the central authority. To aid him the prefect

Sumber: Garvin, J.L & Hoover, Franklin H. 1910: 790. The Encyclopaedia Britannica. A Dictionary of Arts, Sciences, Literature and General Information. Eleventh Edition. Volume X. Cambridge, England: The encyclopaedia Britannica Company. Gambar disajikan oleh Levri Ardiansyah (2017).

The Idea of Causation and Modification of the First

Bila saya meneliti administrasi dengan melakukan investigasi terhadap penyebab adanya administrasi, ini berarti penelitian saya berkenaan dengan administrasi sebagai metafisik. Jika saya meneliti administrasi berdasarkan proposisi tentang adanya fakta ilmiah administrasi, maka penelitian ini harus terkait pada *natural science* berupa *positive facts.* Merunut pemikiran tulisan Pressense, E. De (1885: xxi) terbaca cetakan *'Metaphysics occupied primarily with the investigation of causes'* sedangkan *natural science deals with positive facts.* Satu prinsip pada *metaphysics* diantaranya adalah '*The principle of causation into the association'* yang dapat berupa *combination of sensations*' (Pressense, E. De, 1885: xxii). Bagi David Hume, *the principle of causation* merupakan '*the constant succession of phenomena verified by experience*'. Bagi Stuart Mill, *the principle of causation* merupakan '*The idea of causation*' yang dirumuskannya berdasarkan *Laws of Association,* yakni: (1) *Similar phenomena tend to be thought of together;* (2) *Phenomena which have either been experienced or conceived in contiguity tend to be thought of together. The contiguity is of two kinds: simultaneity and immediate succession;* dan (3) *Association produced by contiguity become more certain and rapid by repetition.* Ketiga rumusan ini dimaknai Mill sebagai '*Inseparable Association*' yang menjadi akibat dari '*The idea of causation*'. Pada buku karya Pressense, E. De. (1885: xxii) berjudul '*A Study of Origins: or the Problems of Knowledge, of Being, and of Duty. Second Edition'* (New York: James Pott & Co, Church Publishers) tercetak:

CHAPTER II.

THE PROBLEM OF KNOWLEDGE AND THE NEW PSYCHOLOGY IN ENGLAND, FRANCE, AND GERMANY.

After the school which proscribes any inquiry into causes, comes that which seeks to explain away the principle of causation into the association or combination of sensations, since it recognises no *a priori* in the human mind.

I. *The new English Psychology.*—Its fundamental paradox—that having affirmed that there is a domain of the Unknowable, it proceeds to give an exhaustive explanation of all things.

1. *Stuart Mill.*—Stuart Mill anticipated by David Hume, who accounts for the principle of causation by the constant succession of phenomena verified by experience.

Laws of associationism formulated by Stuart Mill. 1st. Similar phenomena tend to be thought of together. 2nd. Phenomena which have either been experienced or conceived in contiguity tend to be thought of together. The contiguity is of two kinds: simultaneity and immediate succession. 3rd. Associations produced by contiguity become more certain and rapid by repetition. From this so-called inseparable association arises the idea of causation; the one appears to us to produce the other. Possible sensations form a sort of permanent reservoir for the mind, outside of ourselves; and this gives us the idea of the external world and of substance. The idea of the ego results from the contrast between present sensation and the sum of possible sensations outside of ourselves.

Sumber: Pressense, E. De. 1885: xxii. A Study of Origins: or the Problems of Knowledge, of Being, and of Duty. Second Edition. New York: James Pott & Co, Church Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

Herbert Spencer melengkapi rumusan pemikiran Stuart Mill tentang *inseparable association* dengan '*Theory of Evolution*' yakni adanya '*the persistence of force which can neither be augmented nor diminished, but only transformed, and which is ever tending to differentiate itself*'. Pada buku karya Pressense, E. De. (1885: xxiii) berjudul '*A Study of Origins: or the Problems of Knowledge, of Being, and of Duty. Second Edition'* (New York: James Pott & Co, Church Publishers) tercetak:

2. *Herbert Spencer.*—Herbert Spencer supplements Stuart Mill, by his theory of evolution, or of the persistence of force which can neither be augmented nor diminished, but only transformed, and which is ever tending to differentiate itself. The intellectual life at first confounded with the physical, but steadily progressing from the reflex action of the infant to the intricate reasoning of the adult. The accumulation of experiences and hereditary transmission contribute to the evolution of intelligence, modifying at once the brain and the intellect inseparable from it. Thus that which we take to be the *a priori* of human reason, is really the result of experience.

Sumber: Pressense, E. De. 1885: xxiii. A Study of Origins: or the Problems of Knowledge, of Being, and of Duty. Second Edition. New York: James Pott & Co, Church Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

Sebagai peneliti, manakala saya mempersepsi administrasi sebagai '*metaphysical state*', ini berarti saya harus dapat menunjukan '*modification of the first*' yakni perubahan yang terjadi pada penyebab pertama adanya administrasi. Merunut pemikiran tulisan Comte, Auguste (1896: 2) berjudul "*The Positive of Philosophy of Auguste Comte. Vol. 1. Freely Translated and Condensed by Harriet Martineau'* (London: George Bell & Sons) tercetak '*In the metaphysical state, which is only a modification of the first, the mind supposes, instead of superntural beings, abstract forces, veritable entities (that is, personified abstractions) inherent in all beings, and capable of producing phenomena*'). Langkah ini harus saya teruskan dengan memaparkan '*its relation*' berupa uraian tentang pengaruh maupun hubungan yang terjadi akibat adanya perubahan pada penyebab pertama adanya administrasi.
Andai saya juga mempersepsi administrasi sebagai '*positive state*', maka saya harus mempelajari prinsip-prinsip yang melandasi *the first cause* maupun modifikasinya dengan fokus terhadap hubungan tetap (*invariable relations*) yang terjadi pada rangkaian peristiwa administrasi (*succession*) maupun *resemblance,* yakni kepaduan beberapa beda. Pada buku karya Comte, Auguste (1896: 2) berjudul "*The Positive of Philosophy of Auguste Comte. Vol. 1. Freely Translated and Condensed by Harriet Martineau'* (London: George Bell & Sons) tercetak '*In the final, the positive state, the mind has given over the vain search after absolute notions, the origin and destination of the universe, and the causes of phenomena, and applies itself to the study of their laws; that is, their invariable relations of succession and resemblance*'. Dengan memadukan *metaphysical state* dan *positive state* atau *positive facts,* ini berarti saya melangkah berdasarkan kombinasi *reasoning* dan *obervation.* Merunut pemikiran tulisan Pressense, E. De (1885: 4), sudah seharusnya *reasoning* dan *observation* dikombinasikan untuk menghasilkan pengetahuan (*reasoning and observation duly combined are the means of this knowledge*). Kutipan tulisan Comte, Auguste (1896: 2) berjudul "*The Positive of Philosophy of Auguste Comte. Vol. 1. Freely Translated and Condensed by Harriet Martineau'* (London: George Bell & Sons) tercetak pada gambar ini:

First stage. In the theological state, the human mind, seeking the essential nature of beings, the first and final causes (the origin and purpose) of all effects, —in short, Absolute knowledge,—supposes all phenomena to be produced by the immediate action of supernatural beings.

Second Stage. In the metaphysical state, which is only a modification of the first, the mind supposes, instead of supernatural beings, abstract forces, veritable entities (that is, personified abstractions) inherent in all beings, and capable of producing all phenomena. What is called the explanation of phenomena is, in this stage, a mere reference of each to its proper entity.

Third stage. In the final, the positive state, the mind has given over the vain search after Absolute notions, the origin and destination of the universe, and the causes of phenomena, and applies itself to the study of their laws,—that is, their invariable relations of succession and resemblance. Reasoning and observation, duly combined, are the means of this knowledge. What is now understood when we speak of an explanation of facts is simply the establishment of a connection between single phenomena and some general facts, the number of which continually diminishes with the progress of science.

Sumber: Comte, Auguste. 1896: 2. The Positive of Philosophy of August Comte. Vol. 1. Freely Translated and Condensed by Harriet Martineau. London: George Bell & Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran tulisan Comte, Auguste (1896: 2) berjudul "*The Positive of Philosophy of Auguste Comte. Vol. 1. Freely Translated and Condensed by Harriet Martineau'* (London: George Bell & Sons) ini, terbaca bahwa ketiga cabang pengetahuan sambung menyambung melalui 3 kondisi teoretis, yakni (1) *the theological* berupa khayalan (*fictitious*); (2) *metaphysical* berupa *abstract* dan (3) *scientific* berupa *positive facts.* Sebagai *methods of philosophizing,* ketiganya berbeda dan secara prinsip yang radikal, ketiganya saling bertentangan satu terhadap lainnya. Dengan begini, masing-masing dapat terumuskan *general systems of conception* yang tentu saja saling meniadakan satu terhadap dua lainnya. Andai saya merdasarkan pemikiran tentang *the origin of administration* pada *theological,* ini akan menghasilkan *general conception* tentang administrasi sebatas pemahaman semata. Berbeda andai saya mendasarkan pada *positive state* yang *scientific,* maka *general conception* tentang administrasi merupakan fakta yang *fixed* dan definitif. Sedangkan *metaphysical state,* andaipun saya gunakan, akan menghasilkan *general conception* tentang administrasi berupa konsep yang sifatnya transisional. Pada buku karya Comte, Auguste (1896: 1 & 2) berjudul "*The Positive of Philosophy of Auguste Comte. Vol. 1. Freely Translated and Condensed by Harriet Martineau'* (London: George Bell & Sons) tercetak:

From the study of the development of human intelligence, in all directions, and through all times, the discovery arises of a great fundamental law, to which it is necessarily subject, and which has a solid foundation of proof, both in the facts of our organization and in our historical experience. The law is this :—that each of our leading conceptions,—

Law of human progress.

I. B

2 POSITIVE PHILOSOPHY.

each branch of our knowledge,—passes successively through three different theoretical conditions : the Theological, or fictitious ; the Metaphysical, or abstract ; and the Scientific, or positive. In other words, the human mind, by its nature, employs in its progress three methods of philosophizing, the character of which is essentially different, and even radically opposed : viz., the theological method, the metaphysical, and the positive. Hence arise three philosophies, or general systems of conceptions on the aggregate of phenomena, each of which excludes the others. The first is the necessary point of departure of the human understanding ; and the third is its fixed and definitive state. The second is merely a state of transition.

Sumber: Comte, Auguste. 1896: 1 & 2. The Positive of Philosophy of August Comte. Vol. 1. Freely Translated and Condensed by Harriet Martineau. London: George Bell & Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

Meski Comte menuliskan adanya 3 teori yang dapat terumuskan dari 3 *general systems of conception* menggunakan 3 *methods of philosophizing* berdasarkan *theological state, metaphysical state* maupun *scientific state,* namun Comte menegaskan bahwa '*Every theory must be based upon observed facts*'. Bagi saya ini berarti teori hanya dapat terumuskan berdasarkan *scientific state* atau *positive facts.* Pada buku karya Comte, Auguste (1896: 3 & 4) berjudul "*The Positive of Philosophy of Auguste Comte. Vol. 1. Freely Translated and Condensed by Harriet Martineau'* (London: George Bell & Sons) tercetak:

The most important of these reasons arises from the necessity that always exists for some theory to which to refer our facts, combined with the clear impossibility that, at the outset of human knowledge, men could have formed theories out of the observation of facts. All good intellects have repeated, since Bacon's time, that there can be no real knowledgs but that which is based on observed facts. This is incontestible, in our present advanced stage ; but, if we look back to the primitive stage of human knowledge, we shall see that it

Theoretical.

4 POSITIVE PHILOSOPHY.

must have been otherwise then. If it is true that every theory must be based upon observed facts, it is equally true that facts cannot be observed without the guidance of some theory. Without such guidance, our facts would be desultory and fruitless ; we could not retain them : for the most part we could not even perceive them.

Sumber: Comte, Auguste. 1896: 3 & 4. The Positive of Philosophy of August Comte. Vol. 1. Freely Translated and Condensed by Harriet Martineau. London: George Bell & Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

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The Essence of Administration

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Administration Produce Cultures

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1. Administrasi merupakan pelayanan kepada Tuhan dan Raja / Ratu
2. Tuhan *magis* dan administrasi *mini*
3. Raja atau Ratu melayani Tuhan melalui pelayanan kepada Bangsa
4. Administrasi menghasilkan bangunan untuk melayani Tuhan berupa kerajaan dan candi
5. *Administration produce cultures*

Dengan pola pikir ini, maka penelusuran *the origin of administration* dapat tembus hingga ribuan tahun sebelum masehi yakni pada temuan *the oldest cultures*.

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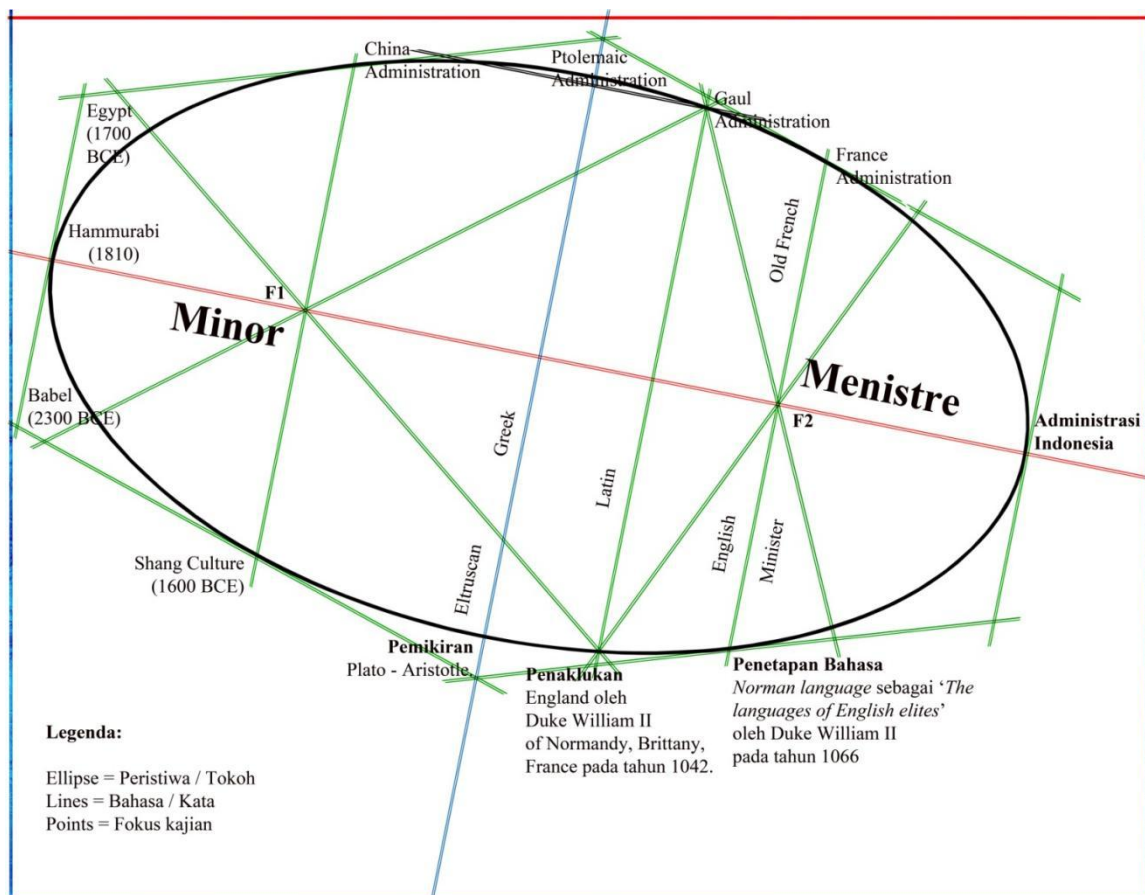
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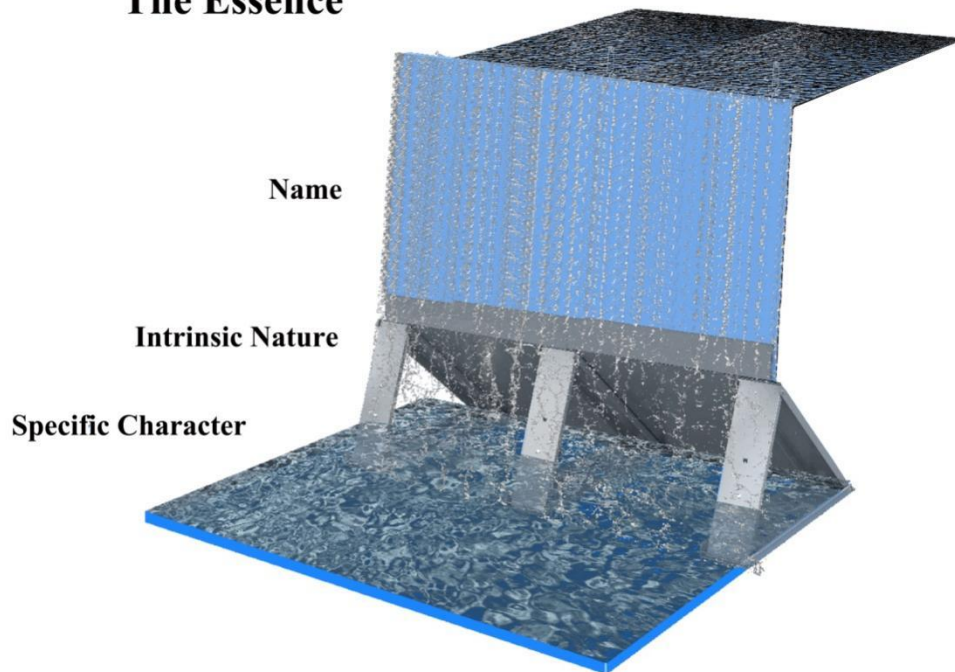
Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai gambar dari http:\\geodesignbarriers.com diolah.

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Karakter Administrasi

Specific Character

Pada buku karya Pressense, E. De (1885: 323 & 324) berjudul ‘A *Study of Origins: or the Problems of Knowledge, of Being, and of Duty. Second Edition’* (New York: James Pott & Co, Church Publishers) tercetak ‘*Specific character of human society – social contrat*’. Kutipannya seperti ini:

I. SPECIFIC CHARACTER OF HUMAN SOCIETY.—SOCIAL CONTRACT.

Let us first look at the fact to be explained, at human society, as we see it in its full development; in accordance with Aristotle's great principle that the true nature of existence

is revealed in its highest development. According to Aristotle, man is designed for social life, and human society only reaches its highest development when it is founded upon a community of ideas of good and evil, of just and unjust—when it becomes, in a word, a moral organism.[1] Aristotle does not represent this human society as a pure creation of the reason, altogether apart from man's lower nature. With his habitual keen and careful observation, he shows how it is modified by the influence of the human organism, and by geographical and historical environment; how there is nothing arbitrary in its elements, which are produced in such exact proportions, that the elimination or diminution of one of them suffices to change the whole social equilibrium.[2] Municipal government is simply the outward expression of the social organism, the bond which holds all its parts in due subordination.[3] But, however large a part we assign to the organic conditions of human society, it will still be distinct from any other, and in particular, from animal society, inasmuch as it alone has the idea of justice.[4]

Sumber: Pressense, E. De. 1885: 323 & 324. A Study of Origins: or the Problems of Knowledge, of Being, and of Duty. Second Edition. New York: James Pott & Co, Church Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

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Specific character of administration: social contract

Minor

a

Mini agar dapat mekar, karena mekar dapat mulai timbul dan berkembang menjadi terbuka, membesar, menjadi banyak dan bertambah luas, hanya dari satu keadaan yakni mini. Tidak ada mekar yang berawal pada keadaan besar.

Minor administration merupakan keadaan administrasi yang memungkinkan terjadinya perkembangan berupa pemekaran maupun pembangunan.

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The Idea of Causation and Modification of the First Cause and Effect

Aksioma tentang *the cause* yang diyakini oleh para filsuf dan banyak ahli adalah 'Tidak ada hal yang terjadi tanpa sebab' (*nothing happens without an adequate cause*). Pada buku karya Serbati, Antonio Rosmini (1883: 197) berjudul '*The Origin of Ideas. Vol. 1I. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak seperti ini:

CHAPTER IV.

ORIGIN OF THE IDEAS OF CAUSE AND EFFECT.

ARTICLE I.

Object of the present Chapter.

615. Considering that the idea of *Cause*, conjointly with that of substance, is the basis of the whole edifice of human cognitions, I deem it advisable to say here something on this idea also, by way of supplement to what I said on it in another place (350–352). What I wish is, that the origin and the legitimacy of this idea should be set forth in so clear a light, that no one, unless he be bent outright on bidding defiance to the plainest dictates of reason, could dare to dispute its force, and thus destroy this foundation of what is noblest in man—knowledge.

'Nothing happens without an adequate cause;' such is the axiom of the common sense of men.

Sumber: Serbati, Antonio Rosmini. 1883: 198. The Origin of Ideas. Vol. 1I. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Termasuk pula fakta-fakta yang terjadi kemudian juga ada sebabnya. Pada buku karya Serbati, Antonio Rosmini (1883: 198) berjudul '*The Origin of Ideas. Vol. 1I. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak '*Every new fact (i.e. every change*') *necessarily implies a cause adequate to its production'* . Pengertian *new fact* disini meliputi *any action.* Rosmini menuliskan proposisi menjadi 3 bagian: (1) bahwa fakta, peristiwa maupun tindakan dapat dimengerti oleh kita; (2) koneksi tindakan ini terhadap *agent or cause* merupakan hal yang belum kita ketahui; sehingga terbersit (3) ide tentang *agent or cause* ini. Kutipannya tergambar seperti ini:

ARTICLE II.

Proposition.

616. The proposition I have to demonstrate is this :— ' Every new fact (*i.e.* every change) necessarily implies a cause adequate to its production.'

By new *fact* I mean any *action* whatever joined with a change, or (generally) with a motion of some kind or other, whether its effect pass outside of, or remain within it.

I need not enumerate all the different species of *actions* that are possible ; but I wish it to be distinctly understood that under this term I include every conceivable species of action.

Now my contention is, that whenever we perceive an *action*, we perceive also an agent or cause of the same. To account for this perception, to describe it precisely as it comes about ; to show how from the idea of new *fact* (event, action) we rise to the idea of *cause*—is to explain the origin of this idea.

ARTICLE III.

Analysis of the above proposition, directed to point out the knot of the difficulty.

617. The proposition I have undertaken to demonstrate is a judgment consisting of three parts, which are : (1) the *fact*, the event, the action to be conceived by us ; (2) the *connection* of this action with the agent or cause as yet unknown to us ; (3) the idea of this *agent* or *cause*.

Sumber: Serbati, Antonio Rosmini. 1883: 198. The Origin of Ideas. Vol. 1I. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran pemikiran Rosmini (1883: 200 Vol. II) terbaca bahwa proposisi '*Every new fact necessarily implies a cause*' berarti '*Without a producing cause there could be no event, no action*'.

Pada dasarnya, ide tentang *a cause* merupakan ide tentang *being* yang menghasilkan suatu tindakan. Pada buku karya Serbati, Antonio Rosmini (1883: 198) berjudul '*The Origin of Ideas. Vol. 1I. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak:

The idea of a cause is the idea of a being which produces an action. The analysis of this idea shows in it three parts: (1) the action, (2) the being, (3) the *nexus* between the two.

Now the *action* is given to us by the external or the internal sense. Of what *being* is, we are cognisant by nature.[1] The *nexus* arises from the logical *necessity* which I have already demonstrated, a necessity springing from the nature of the mind or, more properly, of its objects, which cannot be conceived without being; so that the being is the first thing which our mind conceives in every case, because it is the first thing existing, as well as that through which all other things are conceived, because it is through the being, whose appurtenances they are, that they all exist.

Sumber: Serbati, Antonio Rosmini. 1883: 204. The Origin of Ideas. Vol. II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Rosmini (1883:205 Vol. II) juga membedakan antara *cause* dengan *substance,* yakni *cause* merupakan *a subtance which acts,* yang kutipannya tergambar seperti ini:

SUBSTANCE AND CAUSE. 205

ARTICLE V.

Distinction between Substance and Cause.

622. When we, endowed with the faculty of understanding, supply *being* in the *sensitive perception*, we then form the idea of *substance*, that is, of a being which is conceived as existing in itself and not in another thing.

When we supply being in the *intellectual perception* of an *action*, we then form the idea of cause, that is, of a substance which acts.[1]

Sumber: Serbati, Antonio Rosmini. 1883: 205. The Origin of Ideas. Vol. II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran tulisan Rosmini (1883:207 Vol. II) terbaca bahwa '*A substance is a being producing something which we conceive as immanent in it (accident)*', sedangkan *'A cause is a being producing something which terminates outside of the being itself (effect)'.* Dengan begini, bisa jadi *a subtance* merupakan *a cause* pada peristiwa yang terjadi (*a substance is cause in respect in its accident*).

Konsep tentang substansi merupakan turunan dari aplikasi empiris mengenai *the principle of causality*. Merunut pemikiran cetakan tulisan pada buku karya Jammer, Max., (1957: 15) berjudul '*Concept of Force A Study of the Foundations of Dynamics'* (Cambridge, Massachussets: Harvard University Press) terbaca '*The concept of substance thus derives from the empirical applications of the principle of causality*'. Kutipannya tergambar seperti ini:

FORMATION OF SCIENTIFIC CONCEPTS 15

be regarded as having a direct relation to the concept of cause. Indeed, many students of the problem, and foremost among these the Kantian school of thought, consider "force" the exact physical formulation of "cause" and causality. According to this point of view, natural science relates all phenomena in nature to certain substrata, the phenomena being conceived as their effects. Now, in the consistent performance of this operation the scientific conditions of this substratum have to be formulated in such a way that causal connection is maintained and preserved throughout. The concept of substance thus derives from the empirical applications of the principle of causality. The notion of substance thus formed is used, in its turn, to deduce from it the particular causal connections. Causality, thus attached to substance, is called "force" and the substance to which the actions of this force are referred is regarded as the "carrier" of the force.

Sumber: Jammer, Max. 1957: 15. Concept of Force A Study of the Foundations of Dynamics. Cambridge, Massachussets: Harvard University Press. Gambar disajikan oleh Levri Ardiansyah (2017).

The Chance

Pada buku karya Serbati, Antonio Rosmini (1883: 24) berjudul '*The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak '*Accidents cannot exist by themselves alone'* seperti ini:

Now, this rule is the major of a syllogism, and might be worded thus : 'Accidents cannot exist by themselves alone ;' the meaning of which formula is that the mind sees an intrinsic contradiction between the idea of a certain species of things called *accidents*, considered by themselves alone, and the idea of *existence*.

The analysis, therefore, of this rule gives us two elements —(1) the accidents, and (2) the idea of existence.

Sumber: Serbati, Antonio Rosmini. 1883: 24. The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Accident
Accident merupakan peristiwa (*event*). Perbedaan *accident* terhadap *effect* adalah *accident* merupakan peristiwa yang terjadi pada satu benda melengkapi substansi, sedangkan *effect* terpisah dari *cause* dan menjadi benda lainnya. Pada buku karya Serbati, Antonio Rosmini (1883: 142) berjudul '*The Origin of Ideas. Vol. 1I. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak:

568. The ***accident*** is perceived by us through a sensible action exercised on us. It may also be called by the general name of ***event*** ; and this all the more when we consider, that it is not necessary but supervenient to the substance. The only difference between an ***accident*** and an ***effect***[1] is, that the ***accident*** is considered as forming one thing with the substance and giving it completion ; whereas the ***effect*** is considered as separated from the cause and belonging to another being.

Sumber: Serbati, Antonio Rosmini. 1883: 142. The Origin of Ideas. Vol. 1I. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Similitude
Pada buku karya Serbati, Antonio Rosmini (1883: 119) berjudul '*The Origin of Ideas. Vol. II1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak '*Accidents cannot exist by themselves alone'* seperti ini:

1183. That the ***similitude*** to which the ancients ascribed our cognitions of real things, is that which intervenes between an essence ***in potentia*** and an essence ***in act***, so that it is always one and the same thing, but in two different modes, is manifest from their expressions, based upon a most exact analysis of the nature of similitude. In proof of this, it may suffice to quote those two great luminaries, Saint Bonaventure and Saint Thomas of Aquin, by whose teachings so many noble truths have already been illustrated in these pages.

Sumber: Serbati, Antonio Rosmini. 1883: 119. The Origin of Ideas. Vol. 1II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Serbati, Antonio Rosmini (1883: 119 & 120) berjudul '*The Origin of Ideas. Vol. II1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak '*Accidents cannot exist by themselves alone'* seperti ini:

Saint Bonaventure writes: 'Between a thing and its similitude there is neither such an identity as to make them numerically one, nor such a diversity as to make them numerically different; and therefore the similitude of a thing is, by reduction, in the same genus as the thing of which it is the similitude. For, inasmuch as the similitude goes outside the thing, it differs therefrom; but it does not pass into another genus. And I here speak of similitude considered as similitude, and not of the intention of him who uses it; that is, I speak of it in so far as it goes beyond the subject without at the same time parting from it, as we find in the case of the light and its shining.' [1]

Sumber: Serbati, Antonio Rosmini. 1883: 119 & 120. The Origin of Ideas. Vol. III. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Contoh penelusuran *the source of wealth* terbaca pada pemikiran Plato seperti tercetak di buku karya Smith, Adam (MCMII: 10 & 11) berjudul '*The Wealth of Nations*' (New York: P.F. Collier & Son) yang terbaca '*Plato, indeed, perceives that labor is the source of all wealth... In the" Republic" he says: "That which gives rise to society is our inability to satisfy our own desires and the need we have for a large number of things. Thus necessity having compelled men to combine with one another, society is estalished for the sake of mutual assistant... One gives to another what he has in return for what he has not, only because he believes it will be to his advantage."*. Kutipan persepsi Plato tergambarkan seperti ini:

Among the Greeks, where commerce (in the ancient sense of the word, implying the direct exchange of commodities) was considerably extended, are found the first germs of this as of all other sciences. Economic questions could hardly escape the notice of philosophers, least of all of those in the first rank. Accordingly we find Plato and Aristotle alluding to the more important matters connected with the exchange of wealth in a manner which shows considerable insight into the question. Its production, however, entered but slightly into their calculations. The institution of slavery, upon which ancient industry was based, could not fail to obscure the importance of this aspect of the subject. Plato, indeed, perceives that labor is the source of all wealth; but the conditions of his time prevented him from seeing in their true light the consequences of this doctrine. In the "Republic" [2] he says:

"That which gives rise to society is our inability to satisfy our own desires, and the need we have for a large number of things. Thus necessity having compelled men to combine with one another, society is established for the sake of mutual assistance. . . . One gives to another what he has in return for what he has not, only because he believes it will be to his advantage." And then he goes on to show the beneficial results of the division of labor.

Sumber: Smith, Adam. MCMII: 10 & 11. The Wealth of Nations. New York: P.F. Collier & Son. Gambar disajikan oleh Levri Ardiansyah (2017).

Pemahaman masyarakat akademis kala itu, *wealth* merupakan *things,* baik berupa uang, harta kekayaan lainnya serta kepemilikan tanah maupun barang lainnya. Pada masa hidup Plato, *labor* merupakan *slave* yakni budak yang tidak dinilai sebagai sumber kekayaan, karena budak bukanlah kekayaan. Aristotle pada bukunya berjudul '*Politics*' memaparkan pemahaman masyarakat tentang *wealth* yakni '*Wealth is assumed by many to be only a quantity of coin*'. Pada buku karya Smith, Adam (MCMII: 13 &14) berjudul '*The Wealth of Nations*' (New York: P.F. Collier & Son) tercetak:

subject. Speaking of early societies, Aristotle writes: "There were different things which they had to give in exchange for what they wanted, a kind of barter which is

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still practiced among barbarous nations who exchange with one another the necessaries of life: giving and receiving wine, for example, in exchange for coin and the like. . . . But the various necessaries of life are not easily carried about, and hence men agreed to employ in their dealings with each other something which was intrinsically useful, and easily applicable to the purposes of life—for example, iron, silver, and the like. Of this the value was at first measured by size and weight; but in process of time a stamp was put upon it to save the trouble of weighing, and to mark the value. . . . Wealth is assumed by many to be only a quantity of coin. . . . Others maintain that coined money is a sham, a thing not natural, but conventional only, which would have no value or use for any of the purposes of daily life if another commodity were substituted by the users. Indeed, he who is rich in coin may often be in want of necessary food. And how can that be wealth of which a man may have a great abundance, and yet perish with hunger, like Midas in the fable, whose insatiable prayer turned everything that was set before him into gold." [1]

Sumber: Smith, Adam. MCMII: 13 & 14. The Wealth of Nations. New York: P.F. Collier & Son. Gambar disajikan oleh Levri Ardiansyah (2017).

Aristotle lalu merancang '*The various ways of making money, and incidentally refers to the abhorrence of the trade of money-lending, which was universal throughout the ancient world*'. Pada bukunya berjudul '*Politics*' tercetak '*The most hated sort of money-making, and with reason is usury*' (Smith, Adam (MCMII: 14).

Merunut pemikiran pemikiran Paullus, '*The great jurisconsult*', "*The origin of buying and selling is in exchange*". Pada buku karya Smith, Adam (MCMII: 16) berjudul '*The Wealth of Nations*' (New York: P.F. Collier & Son) tercetak:

in most unqualified terms. In the second century, the great jurisconsult, Paullus,[1] expounds clearly enough the true origin and function of money: "The origin of buying and selling is in exchange. Formerly there were no coins, and merchandise was in no way distinguished from money. Every man, according to the necessity of the time and of things, exchanged what was useless to him for what was useful, and it was generally the case that what one had abundance of, another was deficient in. But as it did not always easily happen that when one person had what another desired, that other had also what the first desired: a substance was chosen whose general and durable value obviated the difficulties of exchange by being a common measure. This substance, having received a public stamp, has use and value less as a material than as a quantity, and is no longer called merchandise, but money."

Sumber: Smith, Adam. MCMII: 16. The Wealth of Nations. New York: P.F. Collier & Son. Gambar disajikan oleh Levri Ardiansyah (2017).

menentukan *the origin of buying and selling* berdasarkan history:
merunut pemikiran pendapat Aristotle, '*There was different things which they had to give in exchange for what they wanted, a kind of barter which is still practiced among barbarous nations who exchange with anoe another the necessaries of life: giving and receiving wine, for example, in exchange for coin and the like...*' (Smith, Adam (MCMII: 13 & 14).

The Origin of Element

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Merunut pemikiran Euclid, elemen adalah

Buku karya Marx, Fritz Morstein (1949: vii) berjudul ‘*Elements of Public Administration. Fourth Printing’* (New York: Prentice-Hall-Inc) merupakan kumpulan tulisan 14 ahli. Kutipannya tercetak seperti ini:

This book is also a demonstration of teamwork. The fourteen men who came together to form the team discovered that they thought very much alike about the field of interest they had in common. When they joined forces, all of them were engaged in the practical business of public administration; all of them were under the influence of fresh experience; and all of them were stimulated by new insights that open up to those placed strategically within the administrative structure.

These exceptional circumstances held forth the promise of a unified and systematic treatment of the subject rather than a symposium made up of unconnected essays. In the exchange of views among the members of the team, the preliminary plan grew into an integrated enterprise to which each member contributed his carefully defined share. Throughout the writing of the book, its character as a combined operation was sustained by the team spirit of each participant.

The principal aim of the book is to deepen the reader's understanding of the administrative process as an integral phase of contemporary civilization. In a sense, therefore, this is a broadly political rather than merely technical study. Its focus is on the fundamental problems of public administration—the problems that assert themselves at countless points within the framework of governmental effort. The analysis here presented attempts to explore both the range of controlling institutional factors and the variables of administrative behavior.

Sumber: Marx, Fritz Morstein. 1949: vii. Elements of Public Administration. Fourth Printing. New York: Prentice-Hall-Inc. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku ini tidak tercetak pengertian elemen administrasi publik. Penulis hanya menyajikan kembali perspektif Pearson, Norman M., (1945: 68-80) berjudul "Fayolism As the Necessary Complement of Taylorism," yang tercetak pada *American Political Science Review*, *Vol. 39*, dan perspektif Urwick, Lyndall, (1943) pada bukunya berjudul ‘*The Elements of Administration*’ (London: Pitman) bahwa elemen administrasi publik terdiri dari 3 hipotesis yakni (1) *The role of the executive head in policy-making*; (2) *Relations between that official and his immediate associates in the top structure of the administrative hierarchy*; dan (3) *Relations between the higher operating chiefs and all employees of progressively lower rank*. Kutipannya tergambar seperti ini:

The Origin of Nation
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Administration, Religion and Science
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The Foundation Stone of a New Science

Istilah '*Foundation Stone of Administration*' ini tercetak pada buku karya Riggs, F.W. (1961: 6) berjudul '*The Ecology of Public Administration'* (Bombay – Calcutta – New Delhi – Madras – London – New York: Asia Publishing House) tercetak '*Foundation stone of administration rests on a market orientation*'. Kutipannya tergambar seperti ini:

On this principle, the work of a bureaucrat is a commodity which he offers for sale. The amount paid, i.e. the "salary", is supposed to vary with the value of the labour. Hence the characteristic norm of personnel administration: "equal pay for equal work". Not, of course, that this norm is, or ever can be, fully realized. What we must understand is that this foundation stone of administration rests on a market orientation. Political, social, humanitarian, or other considerations are, in principle, ruled out. In practice, of course, they are not eliminated. Seniority counts, for example, and in the army or the university, a senior man receives more than his junior, even though he may be doing the same work. Nevertheless, the principle of equalizing the prices for bureaucratic labour is deeply ingrained in American personnel administration.

Sumber: Riggs, F. W. 1961: 6. The Ecology of Public Administration. Bombay – Calcutta – New Delhi – Madras – London – New York: Asia Publishing House. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Kelman, John & Fulleylove, John (1904: 158-159) berjudul '*The Holy Land'* (London: Adam & Charles Black) tercetak gambar '*The Dome of the Rock*' seperti ini:

THE DOME OF THE ROCK (MOSQUE OF OMAR) FROM THE BARRACKS NEAR THE SITE OF THE TOWER OF ANTONIA

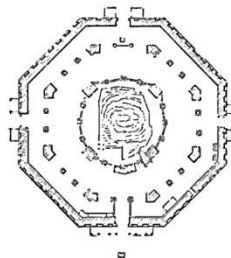
The north porch of the Dome of the Rock is towards the spectator; to the left is the Dome of the Chain; to the right, in the middle distance, is the Mosque of El Aksa. The buildings in the foreground are Sheikhs' houses. The flight of steps and arcade are at the north-west corner of the upper platform of the Dome of the Rock.

The height of the platform at this corner is clearly indicated by the retaining wall. The level ridge of the mountains of Moab and a portion of the range of the Judean hills bound the distant prospect. Time, early morning.

Sumber: Kelman, John & Fulleylove, John. 1904: 158-159. The Holy Land. London: Adam & Charles Black. Gambar disajikan oleh Levri Ardiansyah (2017).

Saat prose perencanaan, *The Doe of the Rock* tergambar pada buku karya Fergusson,James (1878: 198) berjudul '*The Temple of Jews and the Other Buildings in the Haram Area at Jerusalem'* (London: John Murray, Albemarle Street) yang tercetak seperti ini:

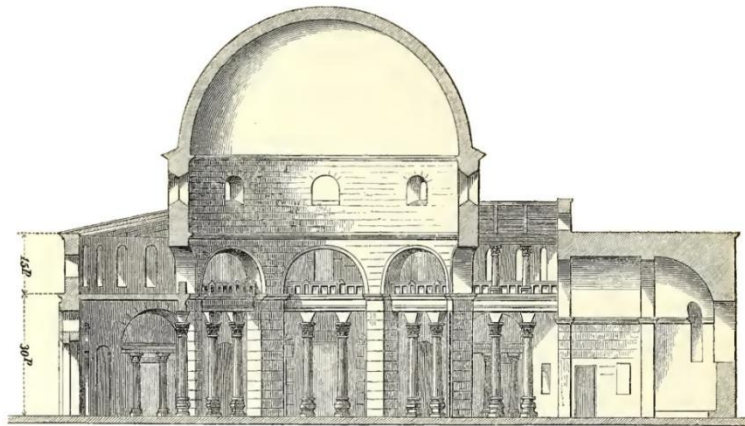
198 CHRISTIAN AND SARACENIC BUILDINGS IN THE HARAM AREA. PART III.

If, consequently, I now again revert to the subject, it is not with any idea that my views will obtain a fair appreciation. I do it more for my own personal satisfaction, being absolutely convinced that, as the evidence at present stands, no other conclusions than those I have arrived at can be for one moment maintained. Of course, new evidence may be brought forward, of which I know nothing, and new discoveries may be made which may alter the whole aspect of the case. For that neither I nor any one else can be held responsible. But after carefully examining and testing every local indication, and every written testimony that is at present available, it appears to me that few things are more clearly proved than that the Dome of the Rock is the identical church Constantine erected over, what he believed to be, the Sepulchre of Christ. If this is so, all the subsidiary questions connected with the subject sink into insignificance, and are scarcely worthy of lengthened consideration; but it may nevertheless be as well to revert again to some of those which have hitherto seemed to present difficulties to the reception of the above conclusions.

48.—PLAN OF THE DOME OF THE ROCK.
(From a drawing by F. Catherwood. Scale, 100 feet to 1 inch.)

Sumber: Fergusson,James. 1878: 198. The Temple of Jews and the Other Buildings in the Haram Area at Jerusalem. London: John Murray, Albemarle Street. Gambar disajikan oleh Levri Ardiansyah (2017).

Sketsa *The Dome of the Rock* tergambar pada buku karya Fergusson, James (1878: 198) berjudul '*The Temple of Jews and the Other Buildings in the Haram Area at Jerusalem'* (London: John Murray, Albemarle Street) yang tercetak seperti ini:

206 CHRISTIAN AND SARACENIC BUILDINGS IN THE HARAM AREA. PART III.

From inscriptions on the walls, it was ascertained that this church was completed in 512 A.D. When it was commenced, we are not told, probably ten or twenty years earlier; but be this as it may, it would be difficult to find anywhere a more complete and interesting example of architectural development than is exhibited by the changes introduced at Bosrah on the designs of a church erected 170 or 180 years earlier at Jerusalem. So evident, indeed, is this that, if De Vogüé's section is to be depended upon—and I see no reason for doubting its general correctness—it ought nearly to suffice for settling this question. It is quite impossible that the section of the Dome of the Rock as shown on Plate VI. could be copied from that of the cathedral at Bosrah, but the

54.—SECTION OF DOME AT BOSRAH. (Facsimile ot one in Count de Vogüé's Syrie Centrale, p. 64.)
(For comparison with section of Dome of the Rock, Plate VI.)

converse appears clear and certain. The two buildings are in the same style, and so like one another, and their connexion is so intimate, that their relative ages are as nearly certain as anything of the sort can well be.

Sumber: Fergusson,James. 1878: 206. The Temple of Jews and the Other Buildings in the Haram Area at Jerusalem. London: John Murray, Albemarle Street. Gambar disajikan oleh Levri Ardiansyah (2017).

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Institution and the Foundation stone of administration.

yakni *family.* Pada buku karya Riggs, F.W. (1961: 16) berjudul '*The Ecology of Public Administration'* (Bombay – Calcutta – New Delhi – Madras – London – New York: Asia Publishing House) tercetak '*... families as political, administrative or economic units'.* terdiri dari 2 bagian pondasi yakni (1) *membership;* da (2) *agent of institution. the agency often becoming a bureaucracy* (p 16) yakni '*the bureaucracy of an association*' (p 17). Prinsip-prinsip administrasi terbangun berdasarkan pondasi administrasi. Pada buku karya Riggs (17) tercetak '*The principles of administration are ... directly derivable frpm the pattern of associational organization*'. *Nation as a whole as a single association (17 & 18)*

- *naturalized citizen*

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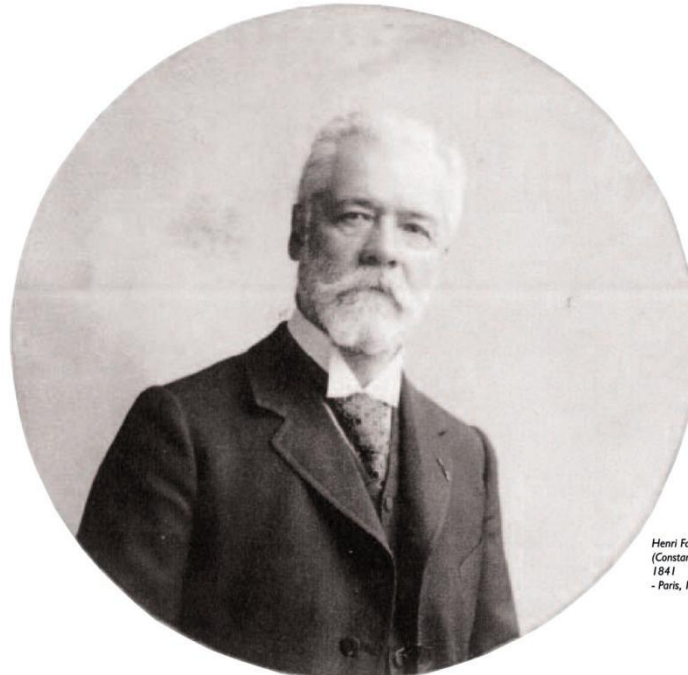
Fayol: His Tought and Life

Pada tulisan Peaucelle, Par Jean-Louis (December 2000: 75) berjudul '*Annales des Mines.* Henri Fayol et La Recherche-Action' (Gerer et Comprendre) tercetak *portrait* Henri Fayol seperti ini:

AUTRES TEMPS, AUTRES LIEUX

Henri Fayol (Constantinople, 1841 - Paris, 1925)

ve est fondée sur des faits, qu'Henri Fayol évoquait largement lors des réunions avec ses disciples et qu'on retrouve disséminés dans nombre de leurs propres textes. Prenons donc quelques-uns uns de ces faits et examinons comment Fayol les traite dans la perspective de sa doctrine.

Le cheval à la jambe cassée

La mine de Commentry est exploitée à partir de tranchées qui s'enfoncent à plus de vingt mètres dans le sol. Ces tranchées sont les subsistances d'une ancienne exploitation à ciel ouvert. Du fond de la tranchée, à cette époque, part la galerie d'accès aux chantiers de mine, qui descend en pente douce. Cette galerie sert à l'accès des mineurs et à l'évacuation du charbon sur des wagonnets tirés par un cheval. Le cheval est donc un élément important de la production.

En mai 1861, Henri Fayol cite un extrait de son journal [1917, pages 264 à 265], texte qui devait, probablement, être évoqué très souvent puisque Vanuxem [1917, p. 193] en reparle.

« *Ce matin, le cheval du 6e étage du puits Saint Edmond a eu la jambe cassée. J'ai fait un bon pour son remplacement. Prévenu, j'ai aussitôt envoyé un bon aux Écuries centrales pour avoir un cheval de rechange. Le chef des écuries a refusé le*

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GÉRER ET COMPRENDRE

Sumber: Peaucelle, Par Jean-Louis. December 2000: 75. Annales des Mines. Henri Fayol et La Recherche-Action. Gerer et Comprendre. Gambar disajikan oleh Levri Ardiansyah (2017).

Perjalanan singkat karir, tulisan, publikasi dan penghargaan Henri Fayol yang saya ilustrasikan pada gambar ini:

Outline of the Career and Principal Writings of Henri Fayol

Year		Event or Position			Publications
Main	Subsidiary		Age	Date	
1841		Born			
1856		Lycee de Lyon	15		
1858		School of Mines, St. Etienne	17		
1860		Appointed Engineer of the Commentry pits	19		
		of the S.A. Commentry Fourchambault.			Technical Publications on Mining Engineering
1866		Manager of the Commnetry Pits	25		Articles in the Bulletin of the Societe de l'Industri Minerale
1872		General Manager of the Commentry, Montvicq and	31		
		Berry group of mines		1874	Note on Timbering of the Commnetry Pits
				1877	Planning Mine Galleries
				1878	Note on the Erection, Removal and Replacement of Timberring
				1879	Structural Change and Spontaneous Combustion in Coal Exposed to Air
				1882	Note on the Elimination of Night Shifts in the Working of Large Seams
				1885	Note on Subsidence due to Mining
					Scientific Publications on the Geology of Coal Measures
					Proceedings of the Academie des Sciences
				1881	Four Geological Studies of the Commentry Coal Measure
1888		Managing Director of Commentry Fourchambault.			*Bulletin of the Societe de l'Industrie Minerale*
		Appointed a Chevalier of the Legion of Honor		1886	Five Issues Containing the Full Text of a Geological Study of the
	1891	Purchase of the Bressac Mines		to 1893	Comnentry Coal Field, subsequently published as a book in three volume.
	1892	Absorbed the mines and works of Decazepille.			
	1925	Appointed Commander of the Order of the Crown of	84	1925	***Administration, Industrielle et Generale.*** Republished in book form by
		Roumania.			Dunod Freres. Publication of ***Un Grand Ingenieur - Henri Fayol***
		Dinner of Honor given in Paris by the Old Students '			by Henri Verney, a study celebrating the sixty-fifth anniversary of
		Association of the National School of Mines			his graduation.
		to celebrates the sixty-fifth anniversary of		1929	First English translation of *Administration, Industrielle et Generale*
		his graduation.			by the International Management Institute, Geneva.
1925		Died.		1937	English translation of 'Administrative Theory in the State' published in
		Academic Honours			the U.S.A in *Papers in the Science of Administration.*
		Delesse Prize of the Academy of Sciences.		1945	Short account the life and work of Henri Fayol, publshed in Great Britain
		Gold medal of the Societe d'encouragement pour			in The Making of Scientific Management, Vol. 1, "Thirteen Pioneers"
		l'Industrie nationale.			by L. Urwick and E.F.L. Brech.

Sumber: Fayol, Henri. 1954: xviii & xix. General and Industrial Management. Translated from the French Ediion (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd.. Gambar hasil karya ilustrasi Levri Ardiansyah (2017).

Catatan karir, tulisan, publikasi dan penghargaan Henri Fayol ini tercetak pada buku karya Fayol, Henri (1954: xviii & xix) berjudul '*General and Industrial Management. Translated from the French Edition (Dunod) by Constante Storrs with a Foreword by L. Urwick'* (London: Sir Isaac Pitman & Sons, Ltd) yang kutipannya tergambar seperti ini:

OUTLINE OF THE CAREER AND PRINCIPAL WRITINGS OF HENRI FAYOL

Year		Event or Position	Age	Date	Publications
Main	Subsidiary				
1841		Born.			
1856		Lycée de Lyon.	15		
1858		School of Mines, St. Étienne.	17		
1860		Appointed Engineer of the Commentry pits of the S.A. Commentry-Fourchambault.	19		TECHNICAL PUBLICATIONS ON MINING ENGINEERING
1866		Manager of the Commentry pits.	25		
1872		General Manager of the Commentry, Montvicq and Berry group of mines.	31		*Articles in the Bulletin of the Société de l'Industrie Minérale*
				1874	Note on the timbering of the Commentry pits.
				1877	Planning mine galleries.
				1878	Note on the erection, removal and replacement of timbering.
				1879	Structural changes and spontaneous combustion in coal exposed to air.
				1882	Note on the elimination of night shifts in the working of large seams.
				1885	Note on subsidence due to mining.
					SCIENTIFIC PUBLICATIONS ON THE GEOLOGY OF COAL MEASURES
					Proceedings of the Académie des Sciences
				1881	Four geological studies of the Commentry coal measure.
					Bulletin of the Société de l'Industrie Minérale
1888		Managing Director of Commentry-Fourchambault. Appointed a Chevalier of the Legion of Honour.	47	1886 to 1893	Five issues containing the full text of a geological study of the Commentry coal field, subsequently published as a book in three volumes.
					Bulletin of the Société géologique de France
	1891	Purchase of the Bressac mines.		1888	Summary of the theory of deltas and history of the formation of the Commentry basin.
	1892	Absorbed the mines and works of Décazeville.			

Sumber: Fayol, Henri. 1954: xviii. General and Industrial Management. Translated from the French Edition (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

OUTLINE OF THE CAREER AND PRINCIPAL WRITINGS OF HENRI FAYOL

Year		Event or Position	Age	Date	Publications
Main	Subsidiary				
	1925	Appointed Commander of the Order of the Crown of Roumania.		1925	*Administration, industrielle et générale.* Re-published in book form by Dunod Frères.
		Dinner of Honour given in Paris by the Old Students' Association of the National School of Mines to celebrate the sixty-fifth anniversary of his graduation.			Publication of *Un grand ingénieur—Henri Fayol* by Henri Verney, a study celebrating the sixty-fifth anniversary of his graduation.
1925		Died.	84		
		ACADEMIC HONOURS		1929	First English translation of *Administration, industrielle et générale* by the International Management Institute, Geneva.
		Delesse Prize of the Academy of Sciences.			
		Gold medal of the Société d'encouragement pour l'Industrie nationale.		1937	English translation of "The Theory of Administration in the State," published in the U.S.A. in *Papers in the Science of Administration.*
		Gold medal and medal of honour of the Société de l'Industrie Minérale.		1945	Short account of the life and work of Henri Fayol, published in Great Britain in *The Making of Scientific Management,* Vol. 1, "Thirteen Pioneers," by L. Urwick and E. F. L. Brech.

Sumber: Fayol, Henri. 1954: xix. General and Industrial Management. Translated from the French Edition (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Fayol, From Geologyst to Philosopher of Adminstration

Pada kalimat pengantar Urwick (1954: vi) untuk buku karya Fayol, Henri yang diterjemahkan oleh *Constante Storrs* menjadi berjudul '*General and Industrial Management*' terbaca bahwa Fayol sangat konsen memikirkan permasalahan geologis di daerah Commentry yang tercetak: '*His mind turned to the geological problems of the area*' dan bahkan Fayol menghasilkan karya berupa '*Geological Monograph*' serta '*Theory of Deltas*' yang tercetak '*These studies led to his famous geological monograph on the Commentry coal measure embodying his theory of deltas'*. Kutipannya tergambar seperti ini:

As will be seen from the appended Table summarizing the various positions he held and his principal publications, his working life fell into four periods.

(i) From 1860 to 1872 he was, while an executive, still a subordinate. His intellectual effort was largely directed to problems of mining engineering, notably the question of overcoming the fire hazards of coal mining.

(ii) From 1872 to 1888 he had a larger responsibility as Director of a group of pits. His mind turned to the geological problems of the area, and the factors which would determine the life of the various pits for which he was responsible. These studies led to his famous geological monograph on the Commentry coal measure embodying his theory of deltas which appeared in three volumes between 1886 and 1893.

Sumber: Fayol, Henri. 1954: vi. General and Industrial Management. Translated from the French Ediion (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Barulah pada tahun 1908, Fayol menyatakan ketertarikannya terhadap Ilmu Administrasi dengan menyampaikan materi berjudul '*Discourse on the General Principles of Administration*' saat acara *Silver Jubilee Congress of the Societe de l'lndustrie Min6rale.* Pada kalimat pengantar Urwick (1954: v) untuk buku karya Fayol, Henri yang diterjemahkan oleh *Constante Storrs* menjadi berjudul '*General and Industrial Management*' tercetak: '*Fayol had already indicated the direction in which his mind was moving in two previous papers, one delivered to the Congres international des Mines et de la Metallurgie in 1900, and the second a lecture entitled "Discourse on the General Principles of Administration," given at the Silver Jubilee Congress of the Societe de l'lndustrie Min6rale in 1908'*. Kutipannya tergambar seperti ini:

FOREWORD

By L. Urwick, O.B.E., M.C., M.A.

Sir Isaac Pitman & Sons, Ltd., are to be congratulated on their decision to issue this new English translation of Henri Fayol's famous work, *Administration industrielle et générale.* It first appeared in French in 1916 in the third issue for that year of the Bulletin of the Société de l'Industrie Minérale. It was no sudden exposition of administrative theory. It was the fruit of long study and experience. Fayol had already indicated the direction in which his mind was moving in two previous papers, one delivered to the Congrès international des Mines et de la Metallurgie in 1900, and the second a lecture entitled "Discourse on the General Principles of Administration," given at the Silver Jubilee Congress of the Société de l'Industrie Minérale in 1908. But for the outbreak of the war of 1914–18 his considered summary of his views on administration would have been delivered two years earlier.

The demand for it was immediate and persistent. The Société de l'Industrie Minérale issued a first reprint of 2,000 copies. This was quickly exhausted and was followed by others. By 1925 15,000 copies had been printed. In this year Dunod Frères of Paris republished the monograph in book form.

The first edition in English was issued in 1929. Mr. J. A. Coubrough, of The British Xylonite Co., Ltd., undertook the work of translation voluntarily. The book was printed in International standard format by the International Management Institute at Geneva. A few hundred copies were made available to Sir Isaac Pitman & Sons, Ltd., for distribution in Great Britain.

No English translation was published in the United States of America, despite the widespread interest in management in that country. As far as is known, the only work of Fayol's which has so far appeared in English in the U.S.A. was Miss Sarah Greer's translation of his paper, "The Administrative Theory in the State," delivered before the Second International

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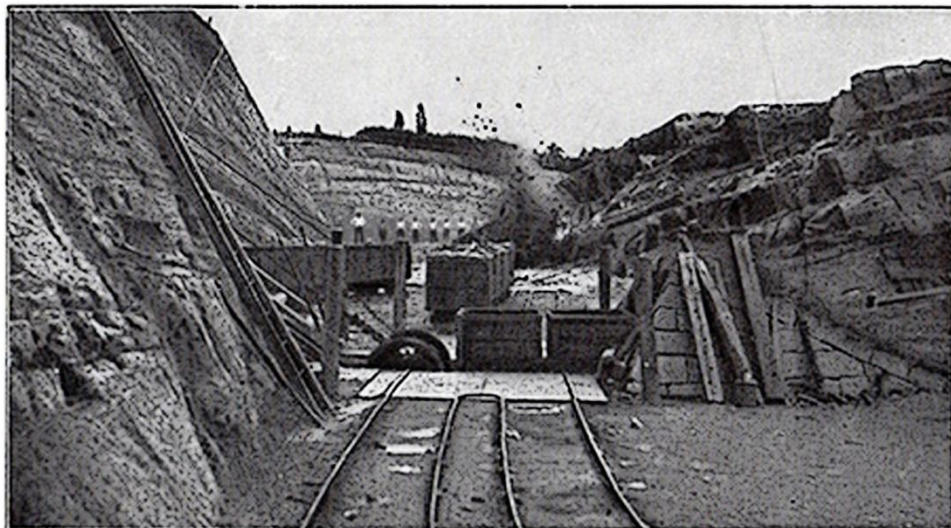
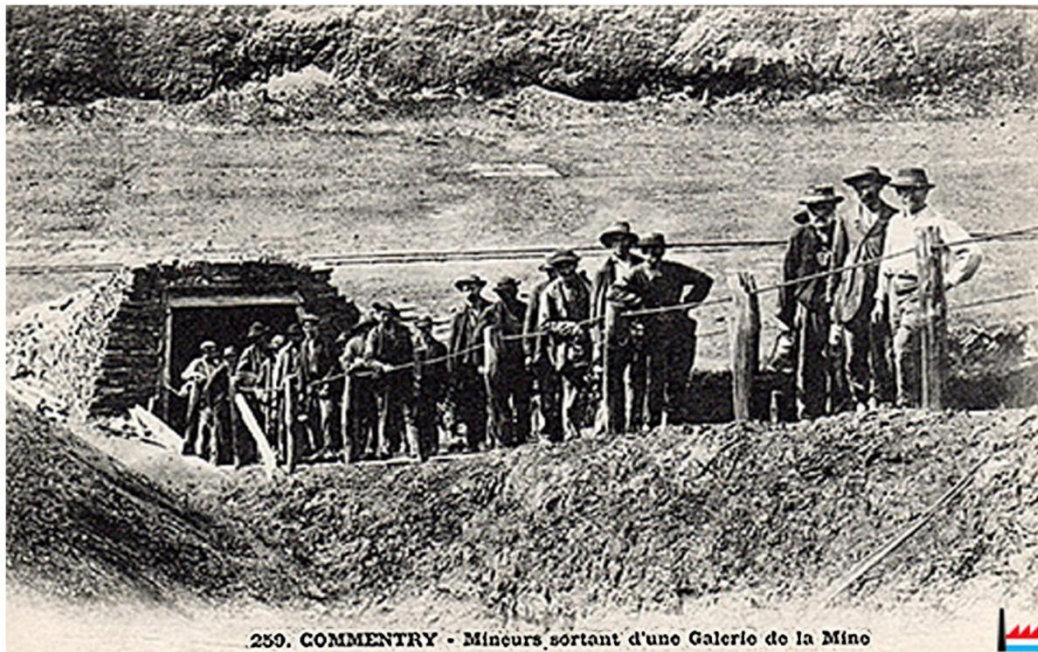
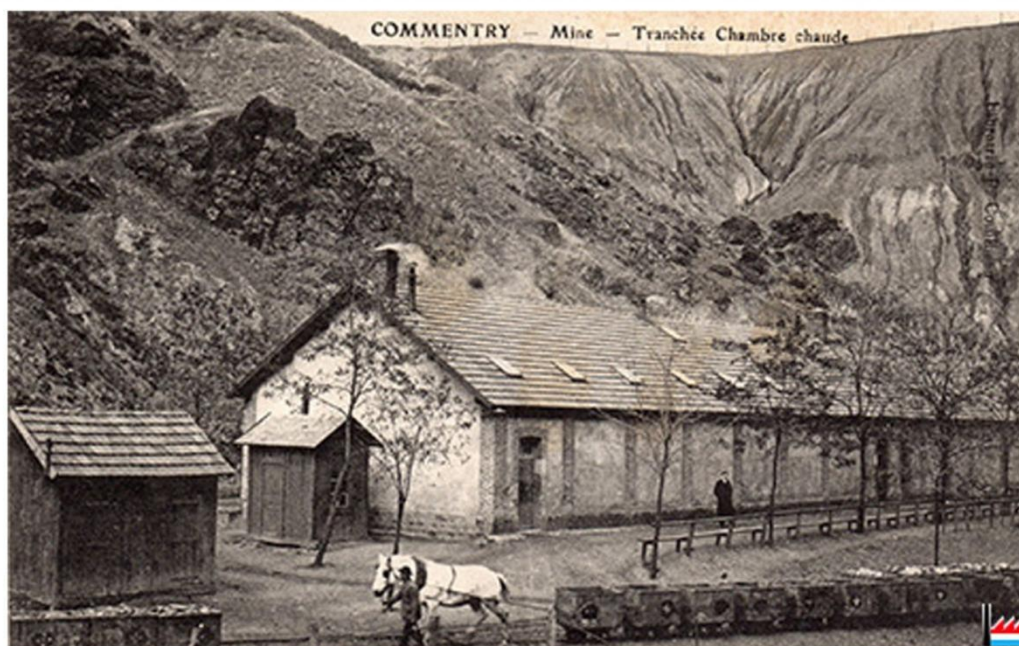
Sumber: Fayol, Henri. 1954: v. General and Industrial Management. Translated from the French Ediion (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Suasana acara *Silver Jubilee* tergambarkan pada karya fotografi Lawrence, Geo. R (1908) berjudul '*Silver Jubilee Celebration, [...]CO. F., Coliseum--Chicago, May 24, 1908'* (https://www.loc.gov/item) yang tercetak seperti ini:.

Sumber: Lawrence, Geo. R. 1908. Silver Jubilee Celebration, [...]CO. F., Coliseum--Chicago, May 24, 1908. https://www.loc.gov/item. Gambar disajikan oleh Levri Ardiansyah (19112017).

Henri Fayol, Sarjana Teknik Pertambangan
Lingkungan Pekerjaan

Sumber: Koleksi pribadi M. H. Fayol img299 tentang daerah commentry dari http:www.industrie.lu. Gambar disajikan oleh Levri Ardiansyah 2017).

Sumber: http:www.industrie.lu. img 142 tentang foto para pekerja pertambangan di Commentry. Gambar disajikan oleh Levri Ardiansyah 2017).

Sumber: http:www.industrie.lu. img 284 tentang foto para pekerja pertambangan di Commentry. Gambar disajikan oleh Levri Ardiansyah 2017).

Kronologi pemikiran dan karya ilmiah Fayol dapat juga dirunut pada buku karya Peaucelle, Par Jean-Louis (December 2000: 87) berjudul '*Annales des Mines.* Henri Fayol et La Recherche-Action' (Gerer et Comprendre) yang tercetak beberapa karya ilmiah Henri Fayol seperti ini:

FAYOL H., 1887, Etude sur le terrain houiller de Commentry, théorie des deltas, *Bulletin de la Société de l'Industrie Minérale*, un volume de 543 pages.

FAYOL H., 1901, Séance solennelle de clôture du congrès de la Société de l'Industrie Minérale, samedi 23 juin 1900, *Bulletin de la Société de l'Industrie Minérale*, N° 15, 1901, 759-768.

FAYOL H., 1908, Le cinquantenaire de la société Commentry-Fourchambault et Decazeville, *Comptes rendus mensuels des réunions de la Société de l'Industrie Minérale*, congrès de Saint Etienne, 14-20 juin 1908, 240-242.

FAYOL H., 1916, Administration industrielle et générale, *Bulletin de la Société de l'Industrie Minérale*, N° 10, 5-164, Rééditions régulières par Dunod depuis 1918.

FAYOL H., 1916, Observations et expériences personnelles, *Archives du Centre d'histoire de l'Europe du XX^e siècle* (Fondation des Sciences Politiques), cote HF5bis DR3, cahier GREGOR 2000-09.

FAYOL H., 1917, De l'importance de la fonction administrative dans le gouvernement des affaires, conférence faite à la Société d'encouragement pour l'industrie nationale (séance du 24 novembre 1917), *Bulletin de la Société de l'Industrie Minérale*, N° 12, 1917, 225-267.

FAYOL H., 1917, Préface à Administration industrielle et générale, l'éveil de l'esprit public, études publiées sous la direction d'Henri Fayol, *Bulletin de la Société de l'Industrie Minérale*, N° 12, 1917, 145-152.

FAYOL H., 1918, L'administration positive dans l'industrie, *La Technique Moderne,* février 1918, 73-75.

FAYOL H., 1921, *L'incapacité industrielle de l'Etat : les PTT*, Dunod, 118p.

Sumber: Peaucelle, Par Jean-Louis. December 2000: 87. Annales des Mines. Henri Fayol et La Recherche-Action. Gerer et Comprendre. Gambar disajikan oleh Levri Ardiansyah (2017).

Untuk pengkajian Ilmu Administrasi, Fayol mendirikan *Centre of Administrative Studies* yang menyelenggarakan pertemuan mingguan bagi para filsuf, profesional, penulis, insinyur, tentara, pejabat maupun pengusaha industri. Pada tahun 1918 M. Carlioz termotivasi mendirikan *School of Higher Commercial Studies* yang mengajarkan '*Fayolisme*'. Lulusan sekolah ini banyak yang menjadi tentara, hingga sekolah ini menjadi semacam *Navy's supply school.* Pada tahun 1921, terbit tulisan Fayol berjudul '*La Reforme Administrative des Pastes et Telegraphes*' dan artikel untuk *Revue politique et parlementaire* dengan judul*, "L'Incapacit6 Administrative de l'etat—les Postes et Te1egraphes"* (*The State's Administrative Ineptitude*). Pada tahun 1923, Fayol mengikuti *Second International Congress of Administrative Science* yang diselenggarakan di Brussels. Setahun kemudian Fayol diundang oleh *Assembly* pada *the League of Nations* bekerjasama dengan *International Federation of Universities* di *Greneva* berkenaan dengan pentingnya *administrative doctrine* untuk dapat memberi kontribusi terhadap perdamaian dunia.

Kontribusi pemikiran Fayol tentang Ilmu Administrasi menunjukan bahwa Fayol adalah seorang '*Philosopher of Administration*'. Istilah ini tercetak pada kalimat pengantar Urwick (1954: ix) untuk buku karya Fayol, Henri yang diterjemahkan oleh *Constante Storrs* menjadi berjudul '*General and Industrial Management*' seperti ini:

Thus his life embraced four careers rather than one, and in each of them he was pre-eminent. As a technical man he achieved national distinction for his work in mining engineering. As a geologist he propounded a completely new theory of the formation of coal-bearing strata and supported it with a detailed study of the Commentry district, almost unique as a piece of geological research. As a scientist turned industrial leader his success in both fields was phenomenal. The days of his own detailed research were over but he applied the scientific approach to problems in every direction and encouraged those associated with him to do likewise. It was at the metal works at Imphy that Mons. C. E. Guillaume did the research work which secured him a Nobel prize in 1921. His success financially has already been recorded. But he always declared that that success was not due to personal qualities, but to the steady application of certain simple principles. Finally, as a philosopher of administration and as a statesman he left a mark on the thinking of his own and of many other European countries, not less than the mark left by Frederick Winslow Taylor in the U.S.A.

Sumber: Fayol, Henri. 1954: ix. General and Industrial Management. Translated from the French Ediion (Dunod) by Constante Storrs with a Foreword by L. Urwick. London: Sir Isaac Pitman & Sons, Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

Administration Industrielle et Generale

Dans un travail magistral qui a, du premier coup, fixé la doctrine administrative (1), M. H. Fayol remarque que, dans toute entreprise, simple ou complexe, on trouve toujours six fonctions essentielles qui sont : la fonction spéciale de l'entreprise, la fonction commerciale, la fonction financière, la fonction de sécurité, la fonction de comptabilité et la fonction administrative.

In a masterly work that has, from the first administrative doctrine (1), Mr H. Fayol remarked that in any business, simple or complex, we always find six essential functions which are: the special function of the business, the commercial function, the financial function, the security function, the accounting function and the administrative function.

De la fonction commerciale, il dit, particulièrement : « La prospérité d'une entreprise industrielle dépend souvent de la fonction commerciale autant que de la fonction technique; si le produit ne s'écoule pas, c'est la ruine. From the commercial function, he says, particularly: "The prosperity of an industrial enterprise often depends on the commercial function as much as the technical function; if the product does not flow, it is ruin.

« Savoir acheter et vendre est aussi important que de savoir fabriquer. « Avec de la finesse et de la décision, l'habileté commerciale comporte une profonde con naissance du marché et de

la force des rivaux, une longue prévoyance et, de plus en plus, dans les grandes entreprises, la pratique des ententes

"Knowing how to buy and sell is as important as know how to manufacture. "With finesse and decision, the commercial skill has a deep knowledge of the market and the strength of rivals, long-term foresight and, increasingly, more, in large companies, the practice of cartels

Enfin, lorsque certains produits passent d'un service à un autre d'une même entreprise, la fonction commerciale veille à ce que les prix fixés par l'autorité supérieure — dits prix d'ordre — ne soient pas la source de dangereuses illusions. Finally, when certain products change from a service to another from the same company, the commercial function ensures that prices set by the higher authority - so-called order price - do not be the source of dangerous illusions.

Pada buku karya Carlioz, J (1918: 5) berjudul ‘’*Administration et Organisation Commerciale’* (Paris: H. Dunod et E. Pinat, Editeurs) tercetak:.

ADMINISTRATION

ET

ORGANISATION COMMERCIALE

PROGRAMME

Dans un travail magistral qui a, du premier coup, fixé la doctrine administrative (1), M. H. Fayol remarque que, dans toute entreprise, simple ou complexe, on trouve toujours six fonctions essentielles qui sont : la fonction spéciale de l'entreprise, la fonction commerciale, la fonction financière, la fonction de sécurité, la fonction de comptabilité et la fonction administrative.

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« Savoir acheter et vendre est aussi important que de savoir fabriquer.

« Avec de la finesse et de la décision, l'habileté commerciale comporte une profonde connaissance du marché et de la force des rivaux, une longue prévoyance et, de plus en plus, dans les grandes entreprises, la pratique des ententes.

(1) H. Fayol — *Administration industrielle et générale.* H. Dunod et E. Pinat, éditeurs, Paris, 1917.

Sumber: Carlioz, J. 1918: 5. Administration et Organisation Commerciale. Paris: H. Dunod et E. Pinat, Editeurs. Gambar disajikan oleh Levri Ardiansyah (2017).

Nous terminerons par l'application à une entreprise simple, puis à une entreprise complexe, des idées, des observations, des principes que nous aurons développés au cours de notre étude.
We will end by applying to a simple company, then to a complex enterprise, ideas, observations,
principles that we will have developed during our study.
Nous constaterons que, sciemment ou naturellement, tout chef d'un service commercial fait de l'administration et que, pour assurer le parfait fonctionnement de l'important organe qu'est dans une entreprise le service commercial, son chef a dû, à la fois, prévoir, organiser, commander, coordonner et contrôler, comme M. H. Fayol l'a montré de tout bon administrateur.
We will find that, knowingly or naturally, all head of a commercial department does the administration and that, to ensure the perfect functioning of the important organ what is in a business the commercial service, its head has due,

at the same time, to plan, organize, order, coordinate and control, as Mr. H. Fayol has shown of all good administrator.
*Nous avons passé la plus grande partie de notre carrière dans la métallurgie ; il y paraîtra sans doute dans les lignes qui vont suivre. Cela importe peu, car les principes etles éléments d'administration sont généraux et s'appliquent à toutes les entreprises, quelles que soient leurs spécialités *
We spent most of our career in metallurgy; it will probably appear in the lines who will follow. It does not matter because the principles and the administrative elements are general and apply
to all companies, whatever their specialties.

Pada buku karya Carlioz, J (1918: 6) berjudul ''*Administration et Organisation Commerciale'* (Paris: H. Dunod et E. Pinat, Editeurs) tercetak:.

6 J. CARLIOZ

« Enfin, lorsque certains produits passent d'un service à un autre d'une même entreprise, la fonction commerciale veille à ce que les prix fixés par l'autorité supérieure — dits *prix d'ordre* — ne soient pas la source de dangereuses illusions. »

Nous nous proposons, dans les pages qui vont suivre, d'étudier aussi complètement que possible cette fonction commerciale, d'en voir l'objet, le but, les moyens; d'examiner comment les moyens appliqués à l'objet doivent être organisés et coordonnés pour atteindre sûrement le but.

Nous constaterons que, sciemment ou naturellement, tout chef d'un service commercial fait de l'administration et que, pour assurer le parfait fonctionnement de l'important organe qu'est dans une entreprise le service commercial, son chef a dû, à la fois, prévoir, organiser, commander, coordonner et contrôler, comme M. H. Fayol l'a montré de tout bon administrateur.

Nous terminerons par l'application à une entreprise simple, puis à une entreprise complexe, des idées, des observations, des principes que nous aurons développés au cours de notre étude.

Nous avons passé la plus grande partie de notre carrière dans la métallurgie; il y paraitra sans doute dans les lignes qui vont suivre. Cela importe peu, car les principes et les éléments d'administration sont généraux et s'appliquent à toutes les entreprises, quelles que soient leurs spécialités.

Sumber: Carlioz, J. 1918: 6. Administration et Organisation Commerciale. Paris: H. Dunod et E. Pinat, Editeurs. Gambar disajikan oleh Levri Ardiansyah (2017).

*Pendant qu'il travaillera*à l'organisation de son entreprise, le chef aura sans cesse présents à la mémoire les principes d'administration énumérés par M. H. Fayol : la division du travail, l'autorité, la discipline, la hiérarchie, l'ordre, l'initiative.*
*While working * on the organization of his business, the leader will constantly present in memory the principles listed by Mr H. Fayol: the division of the work, authority, discipline, hierarchy, order, the initiative.*

Il faut laissera chaque agent une dose d'initiative proportionnée à son grade ; l'entreprise a même un intérêt évident à ce que l'initiative de chacun de ses agents soit développée jusqu'au maximum compatible avec l'autorité, à chaque niveau de la hiérarchie; initiative de l'ouvrier vis-à-vis de son contremaître, du contremaître à l'égard de son chef d'atelier du chef d'atelier auprès du chef de service, enfin, du chef de service avec le chef de l'entreprise
Each agent must be given a proportionate dose of initiative to his rank; the company even has an obvious interest that the initiative of each of its agents is developed up to the maximum consistent with the authority, at each level of hierarchy; initiative of the worker vis-à-vis his foreman, foreman for his boss Workshop Manager's Workshop with the Department Manager, finally, of the head of department with the head of the company
Pada buku karya Carlioz, J (1918: 90) berjudul ‘’*Administration et Organisation Commerciale’* (Paris: H. Dunod et E. Pinat, Editeurs) tercetak:.

90 J. CARLIOZ

Pendant qu'il travaillera à l'organisation de son entreprise, le chef aura sans cesse présents à la mémoire les principes d'administration énumérés par M. H. Fayol : la division du travail, l'autorité, la discipline, la hiérarchie, l'ordre, l'initiative.

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Sumber: Carlioz, J. 1918: 90. Administration et Organisation Commerciale. Paris: H. Dunod et E. Pinat, Editeurs. Gambar disajikan oleh Levri Ardiansyah (2017).

Doctrine Administrative

Mental picture tentang *doctrine administrative* dapat saya gambarkan seperti ini:

Doctrine Administrative

20 *The Industrial State*

cipal results shown in the work: ***Administration Industrielle et Générale.***

His "doctrine administrative" (administrative doctrine) is the totality of principles, regulations, and procedures which have as their object the facilitation of the management of enterprises (***gouvernement des entreprises***), including all kinds of plants or institutions, big and little, commercial, political, religious, or other.

Sumber: Gambar karya ilustrasi Levri Ardiansyah (2017) memakai cetakan teks pada buku karya Zottan, Magyary. 1938: 20. The Industrial State. United State of America: Thomas Nelson and Sons.

Pada buku karya Zottan, Magyary (1938: 19 & 20) berjudul ‘*The Industrial State’* (United State of America: Thomas Nelson and Sons) terbaca bahwa Fayol adalah ekonom yakni ‘*French economist*’ karena posisi jabatannya *general manager* pada perusahaan batu bara sekaligus merangkap juga sebagai direktur pada beberapa perusahaan sejenis. Buku karya Fayol yang terkenal berjudul ‘*Administration Industrielle et Generale*’ yang pada buku ini tercetak ‘terbit tahun 1916’ berbeda dengan tulisan Urwick pada Pengantar buku Fayol berjudul ‘*General and Industrial Management* hasil terjemahan *Constante Storrs* yang terbaca bahwa buku berjudul ‘*Administration Industrielle et Generale*’ ini terbit tahun 1925. Inti pentingnya, buku berjudul ‘*Administration Industrielle et Generale*’ berisi penjelasan Fayol tentang *‘Doctrine Administrative’* tepatnya ‘*La Doctrine Administrative dans I’Etat’.*

Mengapa *administration* disamakan dengan *management?* Bila merunut pemikiran pada pemikiran filosofis seperti yang dikemukakan Dugald Stewart pada buku karya ‘’ bahwa adanya suatu persyaratan untuk dapat dinyatakan sebagai *the essence* yakni haruslah dapat disamakan terhadap benda lain pada kelas yang sama (*one thing to resemble to another*). Saya menjadi mengerti mengapa administrasi disamakan terhadap manajemen, yakni agar nama administrasi menjadi ada.

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Kutipan yang tercetak pada buku karya Zottan, Magyary (1938: 19 & 20) berjudul '*The Industrial State'* (United State of America: Thomas Nelson and Sons) tergambar seperti ini:

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The system of points used here denotes the degree of relative responsibility. The theoretical maximum, 100, denotes the total possible losses. However, since there is no branch of industry whose operations show a maximum of losses, the number of points showing the losses, characteristic of the several branches of industry is below 100. The above table shows that the branch of industry working at the highest loss is the men's clothing industry, the report explaining that circumstance to be due to that branch having shown the smallest degree of control of output and a complete lack of scientific research work, etc.

The chief result shown in the above table is that *for more than 50% of the losses on operations the responsibility rests with the works management.* The share of responsibility devolving upon the workers is less than 25%; that devolving upon other factors, still less.

§ 7. FAYOL'S THEORY

Toward solving problems resulting from the development of industry a further important step was taken by the French economist, Henri Fayol. His attention was concentrated upon the problem of administration—a problem of importance, not only to industrial plants, but also to undertakings of all kinds. It is one of the most vital problems affecting the manufacturing industry. Fayol was the general manager of a mining company and director of several other mining undertakings. In 1916 he published a work founded upon 50 years of experience and preparation entitled *Administration Industrielle et Générale.*[13] In this work he explained his *doctrine administrative*, which he developed further in his address entitled *La doctrine administrative dans l'Etat,* submitted to the Second International Congress of Administrative Sciences held at Brussels in 1923, applying the doctrine to public administration also. With this latter address I shall deal more exhaustively in another section of this book.[14] Here I would merely stress the principal results shown in the work: *Administration Industrielle et Générale.*

[13] Paris (Dunot, Editeur), 1920, 174 pp.
[14] See Chap. XXVI.

20 *The Industrial State*

His "doctrine administrative" (administrative doctrine) is the totality of principles, regulations, and procedures which have as their object the facilitation of the management of enterprises (*gouvernement des entreprises*), including all kinds of plants or institutions, big and little, commercial, political, religious, or other.

All the operations possible in these enterprises Fayol divides into the following six groups:

1. Technical operations (production, manufacture, transformation).
2. Commercial operations (purchase, sale, exchange).
3. Financial operations (procurement and administration of capital).
4. Insurance operations (protection of goods and persons).
5. Accounting operations (inventory, balance-sheet, prime cost, statistics, etc.).
6. Administrative operations (foresight, organization, command, coördination, control).

These are the essential functions, and the first five groups need no further explanation. His "doctrine administrative" is concerned in particular with the sixth group. A distinction must, however, be made between *administration* and *management.*

According to Fayol, *management* means directing the enterprise (plant) toward the object it has in view and thereby endeavoring to obtain the best results possible with the forces available; management means therefore the assuring of the activity of the six essential functions. *Administration,* on the other hand, is only one of the six functions the activity of which is assured by management. It is therefore less than management. But the rôle played by administration in the hands of the principal leaders, the managers, is so important that management at times appears to be merely an administrative function.[15]

By "administrative function" Fayol means "foresight, organiza-

[15] See Fayol, *op. cit.*, p. 12.

Sumber: Zottan, Magyary. 1938: 19 & 20. The Industrial State. United State of America: Thomas Nelson and Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

Profesor Magyary pada tesisnya ini memberi judul '*Fayol's Theory*' terhadap upaya Fayol menyajikan solusi permasalahan industri manufaktur dengan penjelasan Fayol tentang '*Doctrine administrative*' yang tercetak pada buku berjudul '*Administration Industrielle et Generale*' dan dipaparkan pada '*Second International Congress of Administrative Sciences'* yang diselenggarakan di *Brussels* tahun 1923,

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tion, command, coordination, control." These elements Fayol characterizes as follows:

"The essence of foresight is *planning*. An accurate and complete knowledge of the past and the present enables us to draw conclusions respecting future probabilities and possibilities and respecting development, improvement or reduction.

"Organization is the determination and realization of the general structure of the undertaking in keeping with its objects. It means giving the whole its proper form and each detail its proper place, determining the frame and filling it with content, assuring a precise division of administrative labor, giving the undertaking every necessary performance and accurately determining its sphere of activity. It is in this way that organization carries over into life the theoretical conceptions of foresight.

"Execution consists in commanding and insuring coordination. Command means bringing into action all the organs which foresight considers necessary and organization has created. With command, the role of authority and responsibility, of initiation and discipline, is begun in all phases alike.

"But the giving of orders would not suffice to insure the execution of the will of the chief unless it were supplemented by the effort to insure coordination. Coordination means the introduction into the whole of harmony and equilibrium and the giving to things and acts their due proportions. It means the application of means to the end, the unification and levelling of the various efforts, the establishment of a close connection between the several sections or departments which, though they have different tasks, meet in the common aim.

"Control is what is meant by an inquiry into results. To control is simply to convince ourselves that at all times everything is carried out in keeping with the accepted program, the order given and the principles in force. The work of control compares, discusses, judges, and endeavors to enhance foresight, to simplify and strengthen organization, to increase the perfection of command and to facilitate coordination."[16]

[16] See Second International Congress of Administrative Sciences, Brussels, 1923, Proceedings, Goemaere, editor, 1923, p. 17.

These definitions are so precise that they prove, not only the depth of thought of the author, but also his great power of expression.

Taking this definition, we find it not the exclusive privilege or the personal duty of the head of the undertaking; it is a function divided, like the other five functions, between the head and the members of the corporation.

The technical function does not end with the worker or with the engineer, but reaches up to the leader of the undertaking. On the other hand the administrative function is not the exclusive business of the head; it is shared by the subordinates. But the ratios of participation by the head and the factors of lower grade respectively vary considerably in the execution of the various functions. The establishment of this fact Fayol considers exceptionally important.

The table given below shows the relative importance of the various qualifications required in the personnel of a big industrial undertaking.

It will be seen that with the workers the greatest importance attaches to technical qualifications and expert knowledge. The importance of administrative ability increases and that of technical ability decreases gradually as we go up the scale. For the heads the most important faculty is administrative ability. Fayol regards this result as fundamental and of general application. In all plants the

Category of Employees (Functionaries)	Administrative Expert	Technical Expert	Commercial Knowledge	Financial Knowledge	Insurance	Accountancy	Total
In big undertakings:							
Workers	5	85	—	—	5	5	100
Foremen	15	60	5	—	10	10	100
Work Overseers	25	45	5	—	10	15	100
Head of Department	30	30	5	5	10	20	100
Technical Director	35	30	10	5	10	10	100
Director	40	15	15	10	10	10	100
In Amalgamations of Plants:							
General Manager	50	10	10	10	10	10	100
In State Concerns:							
Minister	50	10	10	10	10	10	100
Head of State	60	8	8	8	8	8	100

Sumber: Zottan, Magyary. 1938: 21 & 22. The Industrial State. United State of America: Thomas Nelson and Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

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most important qualification for the lower-grade factors is professional technical ability; for the heads, administrative ability.

Of particular interest is the conclusion drawn by Fayol from the above figures. He says that the six functions must all operate well to insure the prosperity of any concern. If one of these functions is not working, the enterprise suffers a loss and may indeed fail in consequence. It is necessary therefore that the personnel of any given undertaking should be capable of performing the six functions, inclusive also of the administrative function. It is surprising, however, that public opinion is quite ignorant respecting administration, great as is its importance. It is unable to judge administrative actions; and this ignorance leads to strange consequences, e.g., where the head of a concern may not infringe certain fixed rules in technical questions without risking the loss of his authority, while in administrative questions the same head may with impunity apply even the most incorrect procedure.[17]

The trouble, according to Fayol, lies in the fact that the administrative ability can, and indeed must, be acquired in the same manner as technical ability—first in school and then in practice. Nevertheless administration is not taught anywhere, not even in the colleges nor in the professional colleges. How is that possible? There must be some serious cause; and that cause is simply that there is no theory of administration. Where there is no theory, there is nothing to teach. Eminent heads have neither the time nor the ambition to write; and they usually disappear without leaving behind them either theories or even disciples. And it is really not the duty of eminent chiefs to contribute to the elaboration of an administrative theory. But Fayol considered the supplying of the deficiency so important that he attempted to fill the gap. This was how his *Doctrine Administrative* came into being.

Fayol proceeded to expound his views respecting the principles and elements of administration, starting from the following points.

The organ and instrument of the administrative function is the personnel. Whereas the other functions are occupied with mate-

[17] See Fayol, *op. cit.*, p. 22.

24 *The Industrial State*

rials and machinery, administration means human direction. For the spirit and activity of machinery, administration means human direction. The spirit and activity of the personnel depends upon the observation of certain principles with which he deals in detail, though he emphasizes that in the matter of administration their is no place for rigidity or for the absolute, because everything in it is a question of measure. Measure (proportion), which is the fruit of tact and experience, is one of the most important qualities of an administrator.

The number of principles of administration is not final. The most important treated by Fayol are the following: division of labor, authority and responsibility, discipline, command, and uniformity of management, subordination of private to public interests, giving the full equivalent of labor, centralization, hierarchy, order, equity, the permanency of personnel, initiative, agreement of personnel. The above list of subjects only serves to show the tendency of the discussions to be found in Fayol's book, without thereby having made a study of that book superfluous.

§ 8. QUANTITATIVE INCREASE OF ACTIVITIES OF THE STATE

The foregoing sections show the enormous industrial development, which is a product of the age of capitalism, acquiring such exceptional influence. It has all been achieved during the last hundred years. After 1870 capitalism on a large scale developed; after 1900, as a consequence of further rapid technical development, imperialism took form. We have seen, therefore, that the spheres which made themselves independent of the State passed through profound changes afterwards. During the same period the Constitution of the State hardly changed at all in essence. The system remained the same as before the development of industry, a system which had developed at a time when these new tasks and social dimensions were still unknown. The enormous increase of the population and the social and economic changes naturally affected the life of the

Sumber: Zottan, Magyary. 1938: 23 & 24. The Industrial State. United State of America: Thomas Nelson and Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pengertian *doctrine* serta sinomimnya tercetak pada buku karya Crabb, George., (1882: 360) berjudul '*English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers to which is Now Added an Index to the Words. New Edition with Additions and Corrections'* (New York: Harper & Brothers, Publishers) yakni:

be taught. TRACTABLE, from *traho*, denotes the readiness to be drawn. One is *docile* as a scholar; one is *tractable* as a child or a servant. Where anything is to be learned, *docility* is necessary; where anything is to be done at the call of another, *tractability* is required. DUCTILITY, from *duco*, to lead, signifies aptness to be led, and is applied to the mind or its powers, which yield readily to impressions.

The Persians are not wholly void of martial spirit; and if they are not naturally brave, they are at least extremely *docile*, and might, with proper discipline, be made excellent soldiers. SIR W. JONES.

The people, without being servile, must be *tractable*. BURKE.

The will was then (before the fall) *ductile* and pliant to all the motions of right reason. SOUTH.

Animals may be said to be *docile* and *tractable* with a like distinction; inanimate objects, as metals, etc., may be *ductile*.

Their reindeer form their riches; these their tents,
Their robes, their beds, and all their homely wealth,
Supply their wholesome fare and cheerful cups;
Obsequious at their call, the *docile* tribe
Yield to the sledge their necks. THOMSON.

They (the Arabian horses) are so *tractable* and familiar that they will run from the fields to the call of their masters. GOLDSMITH.

The *ductile* wax with busy hands I mould. POPE.

DOCTRINE, PRECEPT, PRINCIPLE.

DOCTRINE, in French *doctrine*, Latin *doctrina*, from *doceo*, to teach, signifies the thing taught; PRECEPT, from the Latin *præcipio*, the thing laid down; PRINCIPLE, in French *principe*, Latin *principium*, the beginning of things, that is, their first or original component parts.

A *doctrine* requires a teacher; a *precept* requires a superior with authority; a *principle* requires only a maintainer or holder. A *doctrine* is always framed by some one; a *precept* is enjoined or laid down by some one; a *principle* lies in the thing itself. A *doctrine* is composed of *principles*; a *precept* rests upon *principles* or *doctrines*. Pythagoras taught the *doctrine* of the metempsychosis, and enjoined many *precepts* on his disciples for the regulation of their conduct, particularly that they should abstain from eating animal food, and be only silent hearers for the first five years of their scholarship: the former of these rules depended upon the preceding *doctrine* of the soul's transmigration to the bodies of animals; the latter rested on that simple *principle* of education, the entire devotion of the scholar to the master. We are said to believe in *doctrines*; to obey *precepts*; to imbibe or hold *principles*. *Doctrine* is that which constitutes our faith; *precepts* are that which directs the practice: both are the subjects of rational assent, and suited only to the matured understanding: *principles* are often admitted without examination; and imbibed as frequently from observation and circumstances, as from any direct personal efforts; children as well as men acquire *principles*.

This seditious, unconstitutional *doctrine* of electing kings is now publicly taught, avowed, and printed. BURKE.

Pythagoras's first rule directs us to worship the gods, as is ordained by law, for that is the most natural interpretation of the *precept*. ADDISON.

If the *principles* of the revolution of 1688 are anywhere to be found, it is in the Statute called the "Declaration of Rights." BURKE.

DOCTRINE, DOGMA, TENET.

A DOCTRINE originates with an individual. DOGMA, from the Greek δογμα and δοκεω, to think, signifies something thought, admitted, or taken for granted; this lies with a body or number of individuals. TENET, from the Latin *teneo*, to hold or maintain, signifies the thing held or maintained, and is a species of principle (*v. Doctrine*) specifically maintained in matters of opinion by persons in general. A *doctrine* rests on the authority of the individual by whom it is framed; the *dogma* on the authority of the body by whom it is maintained; a *tenet* rests on its own intrinsic merits. Many of the *doctrines* of our blessed Saviour are held by faith in him; they are subjects of persuasion by the exercise of our rational powers; the *dogmas* of the Romish Church are admitted by none but such as admit its authority: every sect has its peculiar *tenets*.

Unpractis'd he to fawn or seek for pow'r
By *doctrines* fashion'd to the varying hour;
Far other aims his heart had learn'd to prize,
More skill'd to raise the wretched than to rise.
GOLDSMITH.

Sumber: Crabb, George. 1882: 360. English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers ti which is Now Added an Index to the Words. New Edition with Additions and Corrections. New York: Harper & Brothers, Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran tulisan pada buku karya Crabb, George., (1882: 360) ini, doktrin adalah pengajaran (*to teach*) yang memiliki pengertian yang sama dengan *precept* yakni pengumuman (*the thing laid down or to assert or declare emphatically*) maupun *principles* (permulaan). *Doctrine* terdiri dari beberapa prinsip (*a doctrine is composed of principles*) tentang *the beginning of things, their first or original component of parts.* Pada umumnya, suatu doktrin menjadi kepercayaan (*to believe in doctrines*), *precepts* menjadi kepatuhan (*to obey precepts*) dan *principles* menjadi pegangan (*to hold principles*). Manakala suatu doktrin yang diyakini seorang individu tersebar hingga menjadi kepercayaan banyak individu, maka doktrin yang sifatnya pribadi ini telah menjadi *dogma.* Merunut pemikiran tulisan pada buku karya Crabb, George., (1882: 360) ini, '*A doctrine originates with an individual, ... dogma ... lies with a body or number of individuals.*

Kata kerja untuk *precepts* adalah *command,* sehingga *precepts* merupakan pengumuman yang berisi perintah. Seringkali *precepts* merupakan *maxim* yang kata kerjanya adalah *axiom* yakni *a moral truth,* seperti *maxim* yang diceritakan oleh orang tua. Pada buku karya Crabb, George., (1882: 609) berjudul '*English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers to which is Now Added an Index to the Words. New Edition with Additions and Corrections'* (New York: Harper & Brothers, Publishers) tercetak:

MAXIM, PRECEPT, RULE, LAW.

MAXIM (*v. Axiom*) is a moral truth that carries its own weight with itself. PRECEPT (*v. Command*), RULE (*v. Guide*), and LAW, from *lex* and *lego*, signifying the thing specifically chosen or marked out, all borrow their weight from some external circumstance: the *precept* derives its authority from the individual delivering it; in this manner the *precepts* of our Saviour have a weight which gives them a decided superiority over everything else: the *rule* acquires a worth from its fitness for guiding us in our proceeding: the *law*, which is a species of *rule*, derives its weight from the sanction of power. *Maxims* are often *precepts*, inasmuch as they are communicated to us by our parents; they are *rules*, inasmuch as they serve as a *rule* for our conduct; they are *laws*, inasmuch as they have the sanction of conscience. We respect the *maxims* of antiquity as containing the essence of human wisdom; we reverence the *precepts* of religion as the foundation of all happiness; we regard the *rules* of prudence as preserving us from errors and misfortunes; we respect the *laws* as they are the support of civil society.

I think I may lay it down as a *maxim*, that every man of good common-sense may, if he pleases, most certainly be rich. BUDGELL.

Philosophy has accumulated *precept* upon *precept* to warn us against the anticipation of future calamities. JOHNSON.

I know not whether any *rule* has yet been fixed by which it may be decided when poetry can properly be called easy. JOHNSON.

God is thy *law*, thou mine. MILTON.

Sumber: Crabb, George. 1882: 609. English Synonymes Explained in Alphabetical Order with Copius Illustrations and Examples Drawn from the Best Writers ti which is Now Added an Index to the Words. New Edition with Additions and Corrections. New York: Harper & Brothers, Publishers. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Tutton, A.E.H (1926: 184) berjudul '*Crystalline Form and Chemical Constitution'* (London: Macmillan and Co., Limited) tercetak seperti ini.
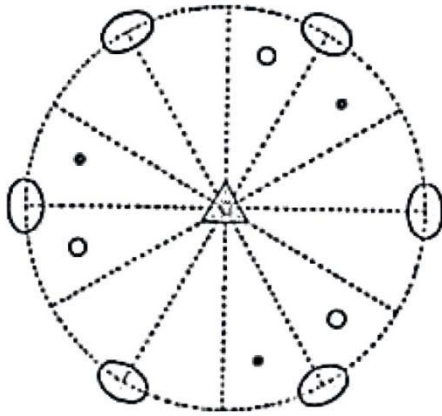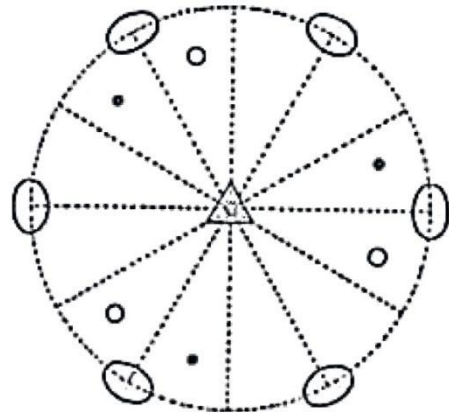
FIG. 58. FIG. 59.

General Form and Symmetry Elements of Quartz Class.

Sumber: Tutton, A.E.H. 1926: 184. Crystalline Form and Chemical Constitution. London: Macmillan and Co., Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

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Management

According to Fayol, ***management*** means directing the enterprise (plant) toward the object it has in view and thereby endeavoring to obtain the best results possible with the forces available; management means therefore the assuring of the activity of the six essential functions. ***Administration,*** on the other hand, is only one of the six functions the activity of which is assured by management. It is therefore less than management. But the rôle played by administration in the hands of the principal leaders, the managers, is so important that management at times appears to be merely an administrative function.[15]

Sumber: Gambar karya ilustrasi Levri Ardiansyah (2017) memakai cetakan teks pada buku karya Zottan, Magyary. 1938: 20. The Industrial State. United State of America: Thomas Nelson and Sons.

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Doktrin administrasi ini terdiri dari 6 grup, yang masing-masing merupakan administrasi dan keenam grup merupakan manajemen. Merunut pemikiran pemikiran Fayol yang tercetak pada buku karya Zottan, Magyary (1938: 20) berjudul '*The Industrial State'* (United State of America: Thomas Nelson and Sons), terbaca bahwa manajemen merupakan aktivitas untuk menjamin bekerjanya keenam fungsi (... *management means directing the enterprise (plant) toward the object it has in view and thereby endeavoring to obtain the best results possible with the forces available; management means therefore the assuring of the activity of the six essential functions.*). Sedangkan administrasi merupakan satu dari 6 fungsi esensial ini (*administration ... is only one of the six functions* dan *management means therefore the assuring of the activity of the six essential functions).*

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The Six Functions

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Fayol menciptakan istilah '*Doctrine Administrative*' karena merupakan totalitas berbagai prinsip, regulasi, maupun prosedur yang memperlancar manajemen pemerintah sebagai perusahaan (*gouvernement des entreprises*) meliputi beragam institusi yang besar maupun kecil, komersil, politik, keagamaan dan lainnya. Fayol membagi *doctrine administrative* menjadi *six groups* yakni (1) *Technical operation;* (2) *Commercial operations;* (3) *Financial operations* berupa *administration of capital;* (4) *Insurance operations;* (5) *Accounting operations;* dan (6) *Administrative operations,* seperti terbaca pada kutipan ini:

His "doctrine administrative" (administrative doctrine) is the totality of principles, regulations, and procedures which have as their object the facilitation of the management of enterprises (***gouvernement des entreprises***), including all kinds of plants or institutions, big and little, commercial, political, religious, or other.

All the operations possible in these enterprises Fayol divides into the following six groups:

1. Technical operations (production, manufacture, transformation).
2. Commercial operations (purchase, sale, exchange).
3. Financial operations (procurement and administration of capital).
4. Insurance operations (protection of goods and persons).
5. Accounting operations (inventory, balance-sheet, prime cost, statistics, etc.).
6. Administrative operations (foresight, organization, command, coördination, control).

These are the essential functions, and the first five groups need no further explanation. His "doctrine administrative" is concerned in particular with the sixth group. A distinction must, however, be made between ***administration*** and ***management.***

Sumber: Zottan, Magyary. 1938: 20. The Industrial State. United State of America: Thomas Nelson and Sons. Gambar disajikan oleh Levri Ardiansyah (2017).

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Sumber: Gambar karya ilustrasi Levri Ardiansyah (2017) berdasarkan cetakan teks pada buku karya Zottan, Magyary. 1938: 20. The Industrial State. United State of America: Thomas Nelson and Sons.

Mengapa saya menggambarkan pemikiran Fayol tentang *one of the six functions* dengan gambar *hexagonal?* Saya mencoba memahami latar pemikiran Fayol berdasarkan:

1. *Academic background*
2. Lingkungan pekerjaan
3. Karya ilmiah
4. Situasi dan kondisi era revolusi industri kala itu
5. *his connection with the statement of earlier philosopher*

Saat membaca pemikiran Aristotle yang tercetak '*Imitation*', tidak serta merta langsung saya pahami sebagai 'benar-benar imitasi' (*downright imitations*). Saya harus menelusuri pernyataan Aristotle ini berkaitan dengan pernyataan para filsuf sebelumnya seperti Pythagoras (540-510), Heraclitus (503) maupun Democritus (430-410). Artinya, saya harus tahu sejarah kata 'imitasi' berdasarkan filosofi (*philosophical term*) hingga saya dapat memahami *technical term* yang dimaksud Aristotle sebagai imitasi. Merunut pemikiran pemikiran Heraclitus pada buku karya Muller, Max (1864: 301) berjudul '*Lectures on the Science of Language Delivered at the Royal Institution of Great Britain in February, March, April & May, 1863. Second Series'* (London: Longman, Green, Longman, Roberts & Green) tercetak '*Words, he said, are like the shadows of things, like the picture of trees, and mountain reflected in the river, like our own images when we look into a miror*'.

Tentu tidak mudah bagi saya untuk memahami apa yang Fayol maksud dengan administrasi (*what Fayol meant by the word 'administration'*). Paling tidak saya menjadi mengerti apa yang bukan administrasi (*what he did not mean*).

Crystalline Rock

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M. Henri Fayol pada penjelasannya tentang '*The Coal Measures of Commentry, France*' menunjukan '*... depressions of older chistose and crystalline rocks*'. Pada tulisan Bolton, Herbert (1921: 160) yang tercetak pada '*Palaeontographical Society 1919. Volume LXXIII.* A Monograph of the Fossil Insects of the British Coal Measures. Part I. London: The Palaeontographical Society. Dulau and Co., Ltd) terbaca:

M. Henri Fayol, in his description of the Coal Measures of Commentry, France, shows that these deposits were laid down in narrow land-locked lakes of a trough-like form lying in depressions of older schistose and crystalline rocks. The tranquil waters received only the finest mud in suspension, and the resultant mudstones have yielded a large insect-fauna, in which Blattoids are most numerous. The bodies of the insects are preserved in many cases. Certain of the insects were strong fliers, and their occurrence with the bodies intact indicates that they, in all probability, haunted the vicinity of the lakes and flew over them. When strongly-flying insects like *Boltonites radstockensis* or *Lithosialis brongniarti* died upon the land, the wings, because of their membranous and chitinous nature, would persist after the destruction of the softer body, and be swept off into streams after heavy rains or flooding of the land-surface, their great superficial area combined with their lightness making flotation easy.

Sumber: Bolton, Herbert. 1921: 160. Palaeontographical Society 1919. Volume LXXIII. A Monograph of the Fossil Insects of the British Coal Measures. Part I. London: The Palaeontographical Society. Dulau and Co., Ltd. Gambar disajikan oleh Levri Ardiansyah (2017).

The coal measures merupakan strata bebatuan (*lithostratigraphical term*) khususnya batu bara sejak periode geologik sekira 60 juta tahun lalu (*carboniferous*).

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Pada buku karya Goldring, Winifred (1931: 15) berjudul '*Handbook of Paleontology for Beginners and Amateurs. Part 2: The Formation'* (Albany: The University of the State of New York) terbaca bahwa batu adalah material pembentuk Bumi yang berupa lapisan padat (*rock refers to the material composing the earth's solid shell*) dan terdiri dari 2 jenis yakni *solid rock* atau *bed rock* dan *unconsolidated rock* atau *mantle rock.* Bebatuan ini dikelompokan kembali pada *three natural groups* yakni (1) *sedimentary,* (2) *igneous* dan (3) *metamorphic. Solid rock* atau *bed rock* termasuk pada kelompok *sedimentary* sebagai bebatuan dasar Bumi. *Igneous rock* terletak diatas *sedimentary rock* dan

umumnya berupa *crystalline rock* sedangkan *metamorphic rock* merupakan hasil pengembangan lebih lanjut dari kedua kelompok batu sebelumnya, oleh karena ini kerap dinamai sebagai *secondary rock.* Kutipannya tergambar seperti ini:

Handbook of Paleontology 15

INTRODUCTION

THE ROCKS

Geologically the term rock refers to the material composing the earth's solid shell. Thus defined it includes the *solid* or *bed rock* and the *unconsolidated* or *mantle rock* which is derived directly from the solid rock beneath through disintegration and decomposition and grades gradually into it, as is the case with the residual soils of our southern states, or which has been transported through some agency and rests abruptly upon it, as in the case of glacial deposits, stream deposits etc. It is the solid rock which will be considered here. According to their mode of origin rocks fall into three natural groups: *sedimentary, igneous* and *metamorphic.* The sedimentary rocks include bedded rocks formed by the deposition of mechanical sediments through the agency of water or the air, as sandstones, shales etc. Here also belong chemical precipitates and evaporation products from solution in water, as cave deposits (stalactites, stalagmites), rock salt, gypsum etc. and deposits formed through organic agencies in the air or water, as coral and shell limestones, chalk, coal, guano etc. Igneous rocks (Latin *igneus,* fiery), are rocks, such as granite, usually crystalline and composed of a number of minerals and formed by the solidification of molten material. Metamorphic rocks (Greek *meta,* over; *morphe,* form), are known as secondary rocks because they are derived from rocks of the two preceding groups by certain processes that bring about recrystallization of the rock constituents either with or without alteration of the chemical composition of the mass, as in the formation of gneisses from granites, marbles from limestones, schists from sandstones etc.

Sumber: Goldring, Winifred. 1931: 15. Handbook of Paleontology for Beginners and Amateurs. Part 2: The Formation. Albany: The University of the State of New York. Gambar disajikan oleh Levri Ardiansyah (2017).

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Fosil

Merunut pemikiran tulisan Brongniart, M. Charles tentang *The Cockroaches of the Carboniferous Epoch.* pada majalah dengan editor Gunther, Albert C.L.G; Dallas, William S; Carruthers, William; & Francis, William (1889: 112) berjudul '*The Annals and Magazine of Natural History including Zoology, Botany and Geology (being a continuation of the 'annals' combined with Loudon and Charles-Worth's Magazine of Natural History). Vol. IV – Sixth Series'* (London: Taylor and Francis) terbaca bahwa Henri Fayol memiliki koleksi fosil lebih dari 600 rupa fosil diantaranya fosil kecoa. '*In the neuration of the first pair of wings Mr. Scudder finds little difference between the recent and fossil cockroaches. The latter he divides into two families, the Blattiuariie and the Mylacridae, distinguished chiefly by the arrangement of the mediastinal nervure. In the Blattinarise the branches of this nervure start at regular intervals from a common trunk, so that the mediastinal ai'ea is usually in the form of a band. In the Mylacridte the branches of the mediastinal nervure originate from a common point at the base of the wing and appear to be arranged in a radiate manner around this point.*
Hitherto the Mylacrida? have been regarded as peculiar to the United States, but the author states that they are as numerous as the Blattinaria; at Commentry, where more than six hundred impressions of them have been collected by M. Fayol'. Kutipannya tergambar seperti ini:

Six Sided

Pada buku karya Bakewell, Robert (1819: 4) berjudul '*An Introduction to Mineralogy: Comprising the Natural History and Characters of Minerals; and a Description of Rocks, both Simple and Agregated; with a New Tabular Arrangement of Earthy Minerals, on a Plan Designed to Facilitate the Knowledge of that Class of Substances'* (London: Strahan and Spottiswoode) tercetak '*The rock-crystal you have in your hand is a six-sided prism terminated by a s-x-sided pyramid, which is its most common form'*. Kutipannya terbaca pada gambar ini:

B. Rock crystals were the first crystallized substances that the ancients appear to have noticed; they supposed that rock-crystal was water permanently congealed; hence the word crystal is derived from the Greek *Krustallos*, which signifies *ice*. In chemistry and the arts, the effects of crystallization are the same as in the mineral kingdom. Sugar-candy is crystallized sugar, and differs in appearance as much from raw sugar, as rock-crystal does from opaque quartz. Sugar becomes transparent by crystallization, and you know that alum, saltpetre, and common salt, when crystallized, take certain forms peculiar to each. Crystals of common salt are cubical, those of alum are octahedrons, and those of salt-petre six-sided prisms. The rock-crystal you have in your hand is a six-sided prism terminated by a six-sided pyramid, which is its most common form. Now we may infer from this similarity of effects, that the process of crystallization in all these substances, depends on one general law, modified by the nature of each.

Sumber: Bakewell, Robert. 1819: 4. An Introduction to Mineralogy: Comprising the Natural History and Characters of Minerals; and a Description of Rocks, both Simple and Agregated; with a New Tabular Arrangement of Earthy Minerals, on a Plan Designed to Facilitate the Knowledge of that Class of Substances. London: Strahan and Spottiswoode. Gambar disajikan oleh Levri Ardiansyah (2017).

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Rupa kristal yang terdapat di Commentry tercetak seperti ini:

Sumber: https://www.mindat.org berjudul 'Commentry Fluorite n CaF2, Quartz'. Gambar disajikan oleh Levri Ardiansyah 2017).

Saat saya melakukan observasi lokasi temuan *Levria Stone* MAR (0110), saya menemukan batu lainnya dengan rupa kristal seperti ini:

Sumber: Karya fotografi Levri Ardiansyah (2014) tercetak pada buu karya Ardiansyah, Levri. 2015. Levria Stone: Photographic Yearalbum 2014. Banten.

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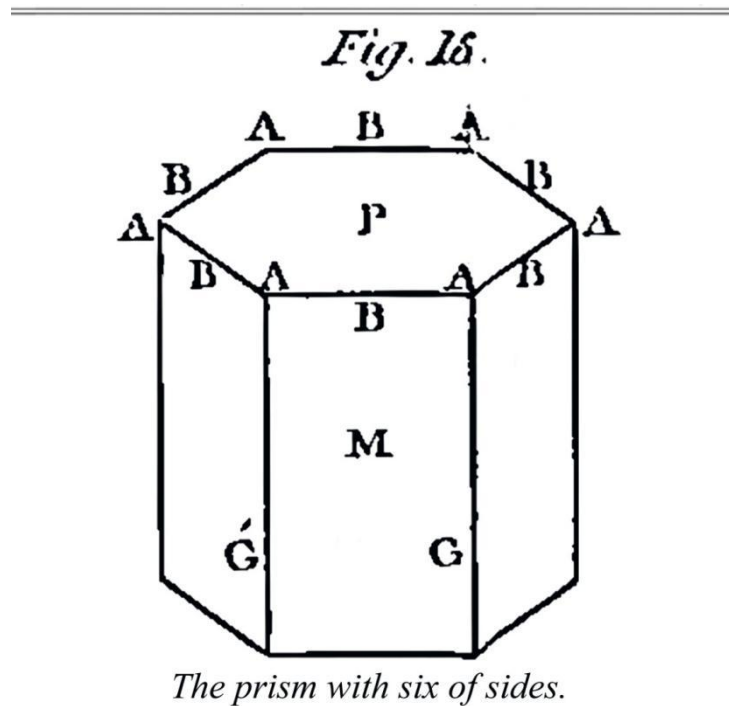
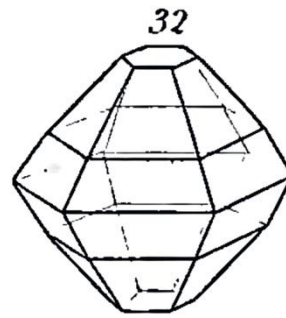
Pada buku karya Bakewell, Robert (1819: 673) berjudul '*An Introduction to Mineralogy: Comprising the Natural History and Characters of Minerals; and a Description of Rocks, both Simple and Agregated; with a New Tabular Arrangement of Earthy Minerals, on a Plan Designed to Facilitate the Knowledge of that Class of Substances'* (London: Strahan and Spottiswoode) tercetak gambar prisma 6 sisi dengan setiap sudut tercetak A dan tercetak pula M ditengah-tengah gambar seperti ini:

The prism with six of sides.

Sumber: Bakewell, Robert. 1819: 673. An Introduction to Mineralogy: Comprising the Natural History and Characters of Minerals; and a Description of Rocks, both Simple and Agregated; with a New Tabular Arrangement of Earthy Minerals, on a Plan Designed to Facilitate the Knowledge of that Class of Substances. London: Strahan and Spottiswoode. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran tulisan Bakewell, Robert (1819: 68 & 678) ini, *six-sided pyramid* dapat tergandakan melalui proses pembentukan yang dikenal sebagai *bevelling edge,* seperti ini:

F. In what respect does bevelment differ from truncation?

B. Bevelment is made on the edges of crystals by two small planes that are inclined, and meet, forming what is called a bevelling edge. Plate V. fig. 32. represents a double six-sided pyramid, with the summits truncated, and the lateral edges rather deeply bevelled. Fig. 11. represents an octahedron, with all the edges bevelled.

Sumber: Bakewell, Robert. 1819: 68 & 678. An Introduction to Mineralogy: Comprising the Natural History and Characters of Minerals; and a Description of Rocks, both Simple and Agregated; with a New Tabular Arrangement of Earthy Minerals, on a Plan Designed to Facilitate the Knowledge of that Class of Substances. London: Strahan and Spottiswoode. Gambar disajikan oleh Levri Ardiansyah (2017).

One-Six

Pada *Mineralogy* terdapat istilah *'One-Six of the Circle'* yang tercetak pada buku karya Bakewell, Robert (1819: 4) berjudul '*An Introduction to Mineralogy: Comprising the Natural History and Characters of Minerals; and a Description of Rocks, both Simple and Agregated; with a New Tabular Arrangement of Earthy Minerals, on a Plan Designed to Facilitate the Knowledge of that Class of Substances'* (London: Strahan and Spottiswoode) seperti ini:

apparent regularity. Sometimes two crystals penetrate each other, sometimes they simply adhere at the surfaces. These are called twin, or triple crystals, &c. according to the number that join. Some crystals present the remarkable appearance of having been divided into half, by a section parallel with the axis, and one of the halves appears to have revolved round their common plane of intersection. In some cases, the half which appears to have revolved has passed through only sixty degrees, or one-sixth of the circle; sometimes it has

72 BOOK I.

passed through half a circle, and the opposite ends of the halves meet. These crystals are called by Haüy *hemitrope*, or half turned round.

Sumber: Bakewell, Robert. 1819: 71 & 72. An Introduction to Mineralogy: Comprising the Natural History and Characters of Minerals; and a Description of Rocks, both Simple and Agregated; with a New Tabular Arrangement of Earthy Minerals, on a Plan Designed to Facilitate the Knowledge of that Class of Substances. London: Strahan and Spottiswoode. Gambar disajikan oleh Levri Ardiansyah (2017).

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Bagaimana rupa model satu grup berhadapan dengan lima grup?

Dalton, John (1808: 218 & 219) berjudul '*A New System of Chemical Philosophy. Part I'* (Manchester: S. Russell for R. Bickerstaff, Strand, London) tercetak:.

ELEMENTS Plate 4

Simple

1 2 3 4 5 6 7 8

9 10 11 12 13 14 15 16

17 18 19 20

Binary

21 22 23 24 25

Ternary

26 27 28 29

Quaternary

30 31 32 33

Quinquenary & Sextenary

34 35

Septenary

36 37

EXPLANATION OF THE PLATES. 219

PLATE IV. This plate contains the arbitrary marks or signs chosen to represent the several chemical elements or ultimate particles.

Fig.			Fig.		
1	Hydrog. its rel. weight	1	11	Strontites - - -	46
2	Azote, - - - - -	5	12	Barytes - - - -	68
3	Carbone or charcoal, -	5	13	Iron - - - - -	38
4	Oxygen, - - - -	7	14	Zinc - - - - -	56
5	Phosphorus, - - -	9	15	Copper - - - -	56
6	Sulphur, - - - -	13	16	Lead - - - - -	95
7	Magnesia, - - - -	20	17	Silver - - - - -	100
8	Lime, - - - - -	23	18	Platina - - - -	100
9	Soda, - - - - -	28	19	Gold - - - - -	140
10	Potash, - - - -	42	20	Mercury - - - -	167

21. An atom of water or steam, composed of 1 of oxygen and 1 of hydrogen, retained in physical contact by a strong affinity, and supposed to be surrounded by a common atmosphere of heat; its relative weight = - - - - - 8
22. An atom of ammonia, composed of 1 of azote and 1 of hydrogen - - - - - - - - - - 6
23. An atom of nitrous gas, composed of 1 of azote and 1 of oxygen - - - - - - - - - 12
24. An atom of olefiant gas, composed of 1 of carbone and 1 of hydrogen - - - - - - - - - 6
25 An atom of carbonic oxide composed of 1 of carbone and 1 of oxygen - - - - - - - - 12
26. An atom of nitrous oxide, 2 azote + 1 oxygen - 17
27. An atom of nitric acid, 1 azote + 2 oxygen - - 19
28. An atom of carbonic acid, 1 carbone + 2 oxygen 19
29. An atom of carburetted hydrogen, 1 carbone + 2 hydrogen - - - - - - - - - - - - 7
30. An atom of oxynitric acid, 1 azote + 3 oxygen 26
31. An atom of sulphuric acid, 1 sulphur + 3 oxygen 34
32. An atom of sulphuretted hydrogen, 1 sulphur + 3 hydrogen - - - - - - - - - - - 16
33. An atom of alcohol, 3 carbone + 1 hydrogen - 16
34. An atom of nitrous acid, 1 nitric acid + 1 nitrous gas - - - - - - - - - - - - - 31
35. An atom of acetous acid, 2 carbone + 2 water - 26
36. An atom of nitrate of ammonia, 1 nitric acid + 1 ammonia + 1 water - - - - - - - - 33
37. An atom of sugar, 1 alcohol + 1 carbonic acid - 35

Sumber: Dalton, John. 1808: 218 & 219. A New System of Chemical Philosophy. Part I. Manchester: S. Russell for R. Bickerstaff, Strand, London.. Gambar disajikan oleh Levri Ardiansyah (2017).

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Quaternary

Pada buku karya Dalton, John (1808: 213) berjudul '*A New System of Chemical Philosophy. Part I'* (Manchester: S. Russell for R. Bickerstaff, Strand, London) tercetak: '*If there are two bodies, A and B, which are disposed to combine, the following is the order in which the combinations may take place, beginning with the most simple: namely ... 1 atom of A + 5 atoms of B = 1 atom of F, quaternary*'. Kutipannya tergambarkan seperti ini:

If there are two bodies, A and B, which are disposed to combine, the following is the order in which the combinations may take place, beginning with the most simple: namely,

1 atom of A + 1 atom of B = 1 atom of C, binary.
1 atom of A + 2 atoms of B = 1 atom of D, ternary.
2 atoms of A + 1 atom of B = 1 atom of E, ternary.
1 atom of A + 3 atoms of B = 1 atom of F, quaternary.
3 atoms of A + 1 atom of B = 1 atom of G, quaternary.
&c. &c.

Sumber: Dalton, John. 1808: 213. A New System of Chemical Philosophy. Part I. Manchester: S. Russell for R. Bickerstaff, Strand, London.. Gambar disajikan oleh Levri Ardiansyah (2017).

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Oonly One of the Six Functions
Kalimat '*Adminisration ... is only one of the six functions*' dapat mengarah pada *binary.* Pada buku karya Dalton, John (1808: 214) berjudul '*A New System of Chemical Philosophy. Part I'* (Manchester: S. Russell for R. Bickerstaff, Strand, London) tercetak: '*When only one combination of two bodies can be obtained, it must be presumed to be a binary one, unless some cause appear to the contrary. When two combinations are observed, they must be presumed to be a binary and a ternary*'. Kutipannya tergambarkan berupa ini:

214 ON CHEMICAL SYNTHESIS.

The following general rules may be adopted as guides in all our investigations respecting chemical synthesis.

1st. When only one combination of two bodies can be obtained, it must be presumed to be a *binary* one, unless some cause appear to the contrary.

2d. When two combinations are observed, they must be presumed to be a *binary* and a *ternary*.

3d. When three combinations are obtained, we may expect one to be a *binary*, and the other two *ternary*.

4th. When four combinations are observed, we should expect one *binary*, two *ternary*, and one *quaternary*, &c.

5th. A *binary* compound should always be specifically heavier than the mere mixture of its two ingredients.

6th. A *ternary* compound should be specifically heavier than the mixture of a binary and a simple, which would, if combined, constitute it; &c.

7th. The above rules and observations equally apply, when two bodies, such as C and D, D and E, &c. are combined.

Sumber: Dalton, John. 1808: 214. A New System of Chemical Philosophy. Part I. Manchester: S. Russell for R. Bickerstaff, Strand, London.. Gambar disajikan oleh Levri Ardiansyah (2017).

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Sebagai pecahan, *binary* yang mengekspresikan 1/6 tercetak sebagai 0, 0010101... berupa desimal 0,1666...

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tercetak '*That water is a binary compound of hydrogen and oxygen, and the relative weight of the two elementary atoms are as 1 : 7, nearly 2^nd^*'.

ON CHEMICAL SYNTHESIS. 215

deduce the following conclusions; 1st. That water is a binary compound of hydrogen and oxygen, and the relative weights of the two elementary atoms are as 1 : 7, nearly; 2d. That ammonia is a binary compound of hydrogen and azote, and the relative weights of the two atoms are as 1 : 5, nearly; 3d. That nitrous gas is a binary compound of azote and oxygen, the atoms of which weigh 5 and 7 respectively; that nitric acid is a binary or ternary compound according as it is derived, and consists of one atom of azote and two of oxygen, together weighing 19; that nitrous oxide is a compound similar to nitric acid, and consists of one atom of oxygen and two of azote, weighing 17; that nitrous acid is a binary compound of nitric acid and nitrous gas, weighing 31; that oxynitric acid is a binary compound of nitric acid and oxygen, weighing 26; 4th. That carbonic oxide is a binary com-

Sumber: Dalton, John. 1808: 215. A New System of Chemical Philosophy. Part I. Manchester: S. Russell for R. Bickerstaff, Strand, London.. Gambar disajikan oleh Levri Ardiansyah (2017).

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Lewis, Gilbert N (1917: 297) pada '*Science. New Series. Volume XLVI'* berjudul 'The Static Atom' (New York: The Science Press)

SCIENCE

FRIDAY, SEPTEMBER 28, 1917

CONTENTS

THE STATIC ATOM[1]

I HAVE been asked to present in this symposium the relation between atomic structure and the "valence bonds" by which the atoms are regarded as tied together, to form the more complicated structure of the molecule. Now the whole theory of molecular constitution which I have developed rests upon the fundamental postulate that the atom is internally at rest or nearly so. On the other hand, Bohr, who has given special attention to the phenomena of spectral series, has been led to the view that the electrons in the atom are revolving rapidly about a central positive nucleus. Because

Sumber: Lewis, Gilbert N. 1917: 297. Science. New Series. Volume XLVI. The Static Atom. New York: The Science Press. Gambar disajikan oleh Levri Ardiansyah (2017).

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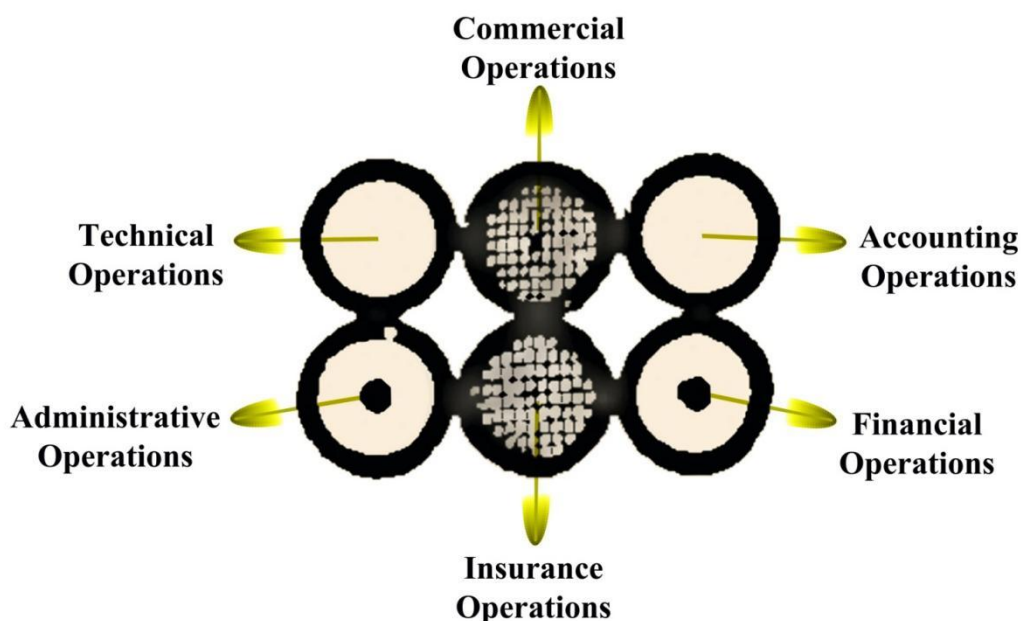
La Doctrine Administrative dans l'Etat

Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai gambar pada buku karya Dalton, John. 1808: 218. A New System of Chemical Philosophy. Part I. Manchester: S. Russell for R. Bickerstaff, Strand, London dan doctrine administrtive yang tercetak pada buku karya vZottan, Magyary. 1938: 20. The Industrial State. United State of America: Thomas Nelson and Sons.

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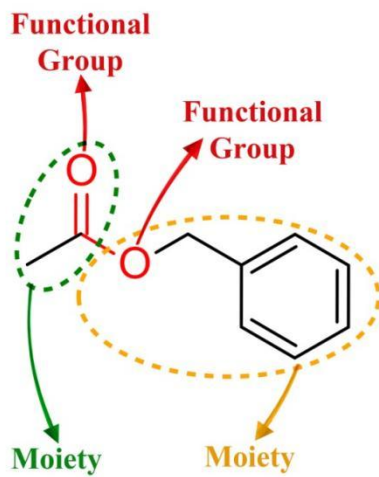
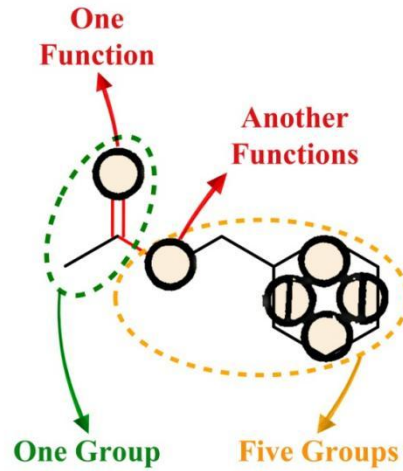

Sumber: Karya ilustrasi Levri Ardiansyah (2017).

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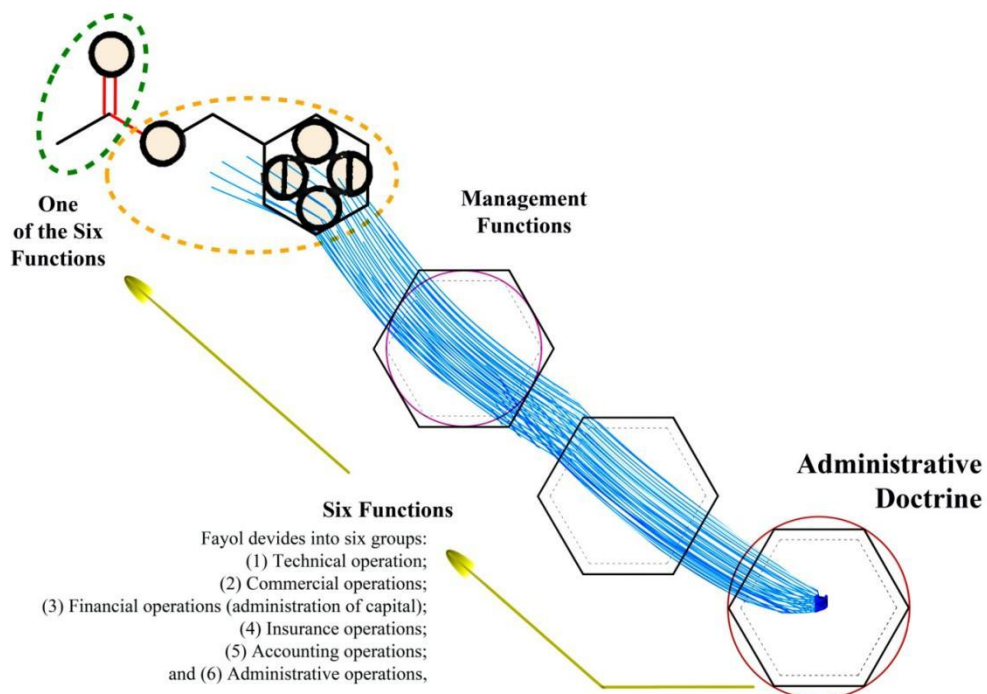
Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai gambar atom pada buku karya Dalton, John. 1808: 218. A New System of Chemical Philosophy. Part I. Manchester: S. Russell for R. Bickerstaff, Strand, London dan gambar latar diolah dari www.mclaneenv.com.

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Fayol dan Metode Induksi

Peaucelle, Par Jean-Louis (December 2000: 87) berjudul '*Annales des Mines.* Henri Fayol et La Recherche-Action' (Gerer et Comprendre) tercetak karya ilmiah Henri Fayol seperti ini:

AUTRES TEMPS, AUTRES LIEUX

HENRI FAYOL ET LA RECHERCHE-ACTION

PAR JEAN-LOUIS PEAUCELLE

Professeur à l'IAE de Paris

En 1900, Henri Fayol, pour la première fois, invitait à une réflexion inductive sur les questions administratives. À ses débuts, le fayolisme, tout comme le taylorisme, la démarche concurrente, se veut scientifique et expérimental. Il se fixe pour objectif de construire sa doctrine à partir des faits. De cette approche, il reste des traces dans les écrits de l'époque. Leur analyse permet de comprendre les raisons de l'échec du fayolisme. Cette tentative éclaire, aujourd'hui encore, les risques de la recherche action.

Le 23 juin 1900, pour la première fois, un patron invite ses pairs à une réflexion inductive sur les questions administratives. Un siècle après le discours d'Henri Fayol, il est intéressant de se pencher sur sa méthode, une méthode expérimentale proche de la recherche action. L'échec de son école de pensée peut largement être attribué aux difficultés qu'il rencontra dans la mise en œuvre de cette approche et par l'abandon par ses disciples qui en résulta.

La pensée d'Henri Fayol est connue grâce à son ouvrage, *Administration Industrielle et Générale*, paru en 1916. Cet ouvrage est fait de théories et donne l'impression d'une « doctrine » assénée sans lien avec le réel. Mais Henri Fayol insistait sur le caractère scientifique de ses observations.

Nous allons donc, tout d'abord, repérer ces appels à la démarche expérimentale dans les écrits d'Henri Fayol et de son école. Dans une deuxième partie, nous sélectionnerons quelques cas de la démarche empirique d'Henri Fayol, les faits qu'il reproduit et les raisonnements qu'il en tire. Sa méthode expérimentale apparaîtra alors plus clairement. De la réflexion critique que l'on ménera sur cette méthode pourront alors être tirées des leçons utiles pour toutes les démarches actuelles de recherche-action. Cet article se terminera donc par un retour sur la méthode même que Fayol utilise, c'est-à-dire sur la méthode historique, appliquée aux sciences de gestion.

L'AFFIRMATION PAR HENRI FAYOL DE SA SCIENTIFICITÉ EXPÉRIMENTALE

À la fin du XIXe siècle, le progrès et la science triomphante imposent partout la méthode scientifique. Claude Bernard la théorise pour la

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T COMPRENDRE

Sumber: Peaucelle, Par Jean-Louis. December 2000: 73. Annales des Mines. Henri Fayol et La Recherche-Action. Gerer et Comprendre. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada tulisan karya Peaucelle, Par Jean-Louis (December 2000: 83) berjudul '*Annales des Mines.* Henri Fayol et La Recherche-Action' (Gerer et Comprendre) tercetak seperti ini:

d'adopter pragmatiquement l'outillage administratif sans se référer à la théorie. Qui pense à Henri Fayol quand on parle d'organigrammes (appelés tableaux administratifs par Fayol) ou quand on parle de description de fonction, de rapports périodiques, de comptes mensuels, de plan d'action, de réunion hebdomadaire des chefs de service ? Ces techniques de management sont préconisées par Henri Fayol, mais elles se diffusent sans aucune référence à sa doctrine. La démonstration du lien entre outillage administratif et doctrine n'est donc pas validée par les faits évoqués, alors que c'est leur but.

Michel Liu [1997] définit l'originalité de la recherche-action par la « *rencontre entre une intention de recherche (chercheurs) et une volonté de changement (usagers)* ». L'objectif est donc dual : « *résoudre le problème des usagers et faire avancer les connaissances fondamentales* ». Henri Fayol ne perçoit pas cette dualité. Il suppose que l'homme d'action est aussi le chercheur. Il se donnera cette charge supplémentaire sans contrepartie. Et, ainsi, il ne trouve ni chercheurs, ni observateurs pour l'épauler. Il n'a aucune valorisation de ce travail à leur offrir.

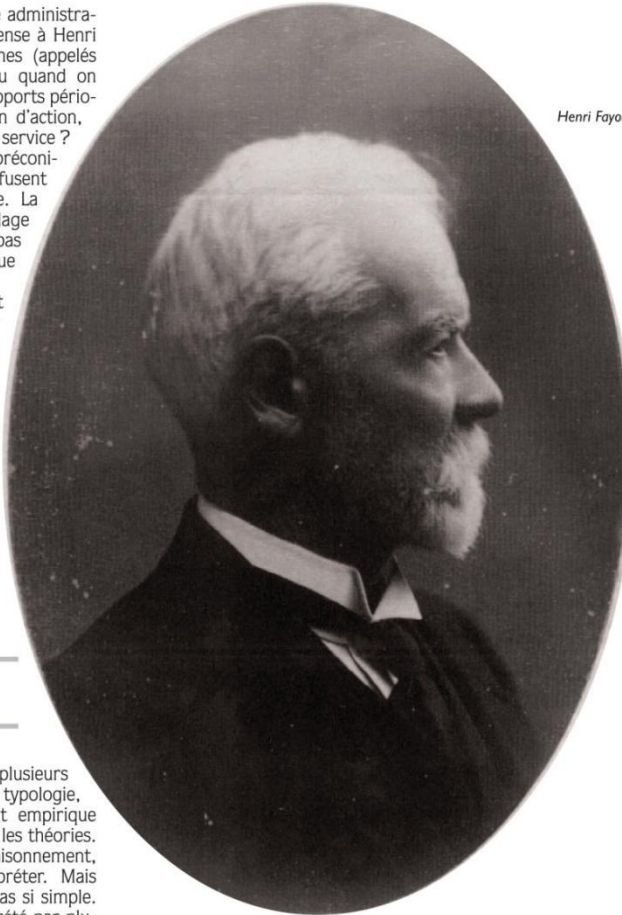
Henri Fayol

L'induction

Resweber [1995] distingue plusieurs types de recherche-action. Dans cette typologie, la recherche d'Henri Fayol a un but empirique d'analyse. Pour lui, les faits précèdent les théories. À partir des faits, il remonte, par le raisonnement, aux théories qui peuvent les interpréter. Mais Popper nous a appris que cela n'est pas si simple. Un ensemble de faits peut être interprété par plusieurs théories. Lorsque plusieurs théories sont candidates pour interpréter les mêmes faits, les scientifiques recherchent les expérimentations, les faits, qui sont bien interprétés par une des théories et pas par les autres. Ces faits deviennent cruciaux pour trancher entre des théories.

Henri Fayol savait tout cela. Dans son travail scientifique sur la formation du charbon, il a accumulé les observations sur le bassin de Commentry, il a mené des expérimentations pour simuler la séparation, dans le lac, des terres et des végétaux charriés par les rivières qui s'y jettent. Il a réexploité les observations faites dans les Houillères du Nord par les tenants de la théorie concurrente. Mais, en 1898, alors qu'il commence sa réflexion sur les questions administratives [voir Blancpain, 1974], il est seul. Sa réflexion est solitaire. Il n'a pas de théorie à appliquer ou à attaquer. En conséquence, il ne perçoit l'interprétation des faits que par une seule théorie, la sienne. Il sera surpris, en 1907, par la publication en France des textes de Taylor. Il tentera toujours de comprendre en quoi sa théorie lui est supérieure. Hélas, il ne saura pas se rapprocher d'une démarche expérimentale dans ce but.

La discussion entre les tayloriens et les fayoliens s'est déroulée, de manière très vive, entre 1916 et 1925. Il n'est pas sûr qu'elle ait été menée scientifiquement à partir des faits. Plus probablement, ce fut une confrontation d'autorité et de rapports de force entre organisateurs, forts de leur

Sumber: Peaucelle, Par Jean-Louis. December 2000: 83. Annales des Mines. Henri Fayol et La Recherche-Action. Gerer et Comprendre. Gambar disajikan oleh Levri Ardiansyah (2017).

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Fayol di Masa Tua

Pada tulisan karya Peaucelle, Par Jean-Louis (December 2000: 78 & 79) berjudul '*Annales des Mines*. Henri Fayol et La Recherche-Action' (Gerer et Comprendre) tercetak foto Henri Fayol seperti ini:

Henri Fayol son petit-fils Grangé (été à Presles)

Sumber: Peaucelle, Par Jean-Louis. December 2000: 78 & 79. Annales des Mines. Henri Fayol et La Recherche-Action. Gerer et Comprendre. Gambar disajikan oleh Levri Ardiansyah (2017).

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Great Subject and General Conception

Saat menulis tentang introspeksi Ilmu Administrasi ini, penulis menyadari kewajiban untuk membuat jelas tentang apa yang sedang ditulis, terutama tentang makna Ilmu Administrasi sebagai ilmu, pengetahuan, konsep dan definisi serta hubungannya dengan ilmu-ilmu lainnya. Oleh karena ini, penulis meneliti tentang keilmuan administrasi secara induktif berupa metode introspeksi dan observasi untuk menemukan konsep yang semakin general semakin terbukti keilmiahannya. Upaya penelitian ini, penulis paparkan dalam suatu diagram komposisi, sehingga menjadi jelas apa sesungguhnya subjek Ilmu Administrasi, apa sesungguhnya *great subject* dan *general conception* dari Ilmu Administrasi. Dengan adanya diagram komposisi Ilmu Administrasi, penulis dapat memetakan klasifikasi Ilmu Administrasi dalam rumpun keilmuan, menemukan fungsi-fungsi administrasi, karakteristik Ilmu Administrasi serta elemen-elemen Ilmu Administrasi.

THE CLASSIFICATION OF SCIENCE.

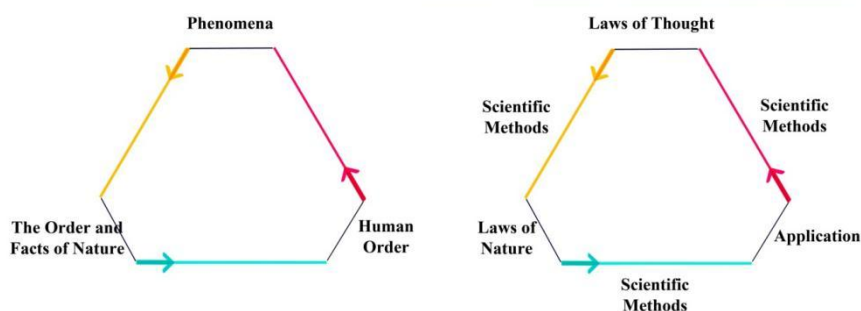
REV. SAMUEL FLEMING, LL. D., PH. D.

II.

PRINCIPLES OF CLASSIFICATION.

Science may be properly classified with respect to either the order and facts of nature, or the laws of thought and methods of obtaining the knowledge of facts. In respect to the first basis, the classification may proceed upon the twofold method of arranging the order and laws of phenomena, separately considered, or of considering these in their immediate connection. And while either special method involves the complex process of nature, which is the province of philosophy in the discovery of laws,—the object of classification is to set forth the order of facts and laws which have already been discovered. It is a statement of their connections as brought within the scope of observation, as they stand in their completeness of order, while many facts may still remain unknown. Processes are continually going on in the physical realm, as exhibited in the heavens and in the earth. It is hence not a statement of historical development of each particular science, nor of the body of sciences. It is not an arrangement according to the chronological order of discovery of the facts. It is not a curriculum or course of study for discipline and acquisition. Such a course is arranged with reference to a harmonious development of mind, and requires the prosecution of diverse studies pursued simultaneously. Yet a proper classification proceeds upon the method of arranging or grouping the subordinate sciences according to both the order of philosophic inquiry, and of the subordination of facts and principles to the divisions and uses of science from the lower to the higher, and from phenomena to laws and applications.

Sumber: Fleming, Samuel. 1881. The Classification of Science II. Principles Classification. Article from Science, Volume 2. JSTOR metadata. Gambar dibuat oleh Levri Ardiansyah (2016).

Secara umum, klasifikasi ilmu dapat digambarkan seperti ini:

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016)

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016)

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016)

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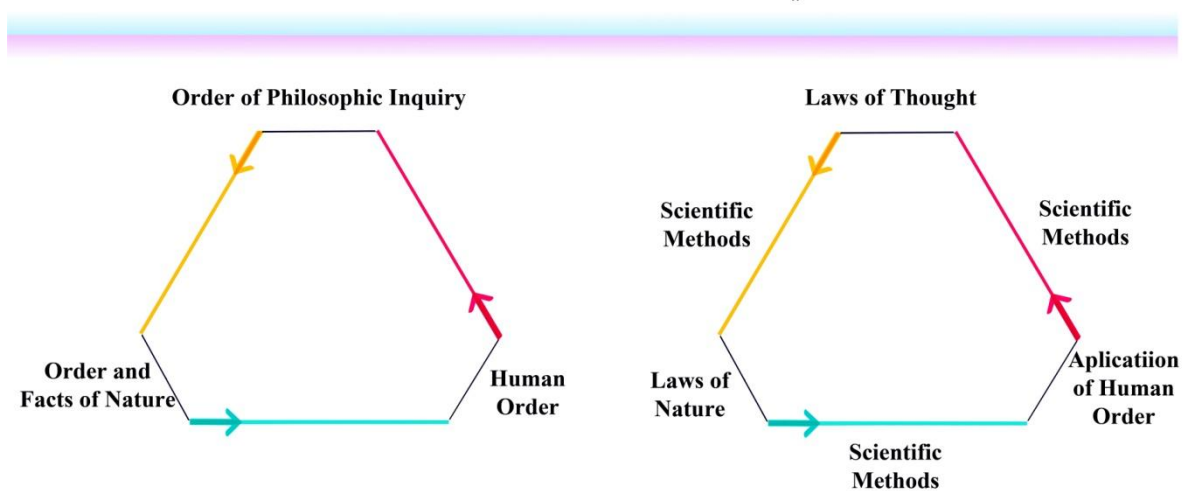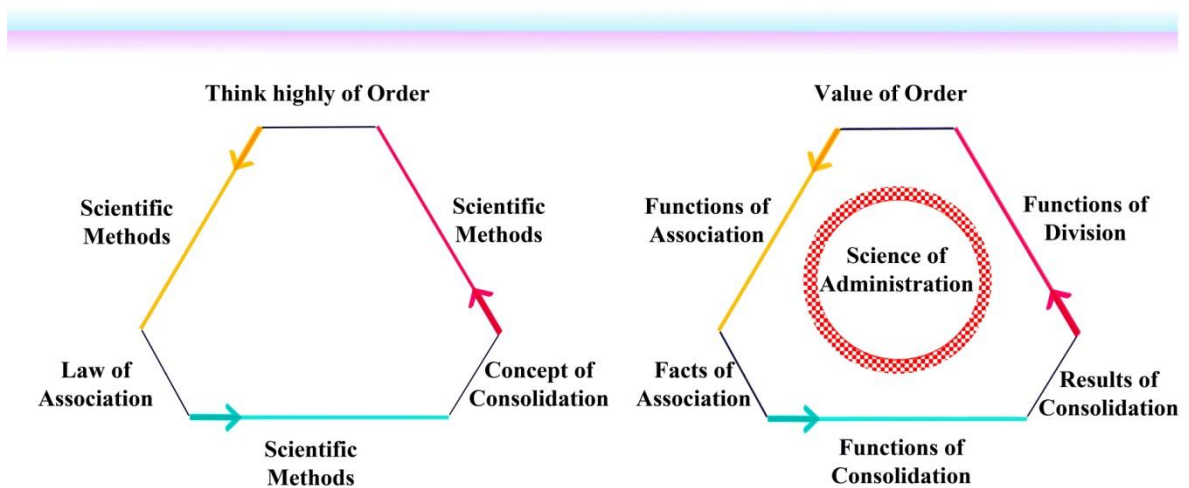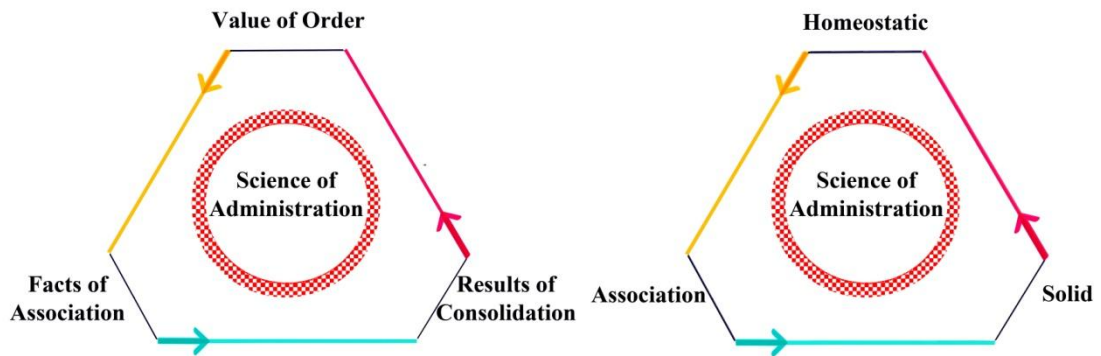
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016)

Seperti halnya semua ilmu, Ilmu Administrasi adalah *knowledge,* yaitu *knowledge* tentang *definite fact* yaitu *human-nature association* dan *human consolidation* dalam menyelenggarakan pelayanan yang padu (*solid service*) agar tercapai keseimbangan kehidupan manusia dengan lingkungan. *Great subject* Ilmu Administrasi adalah *association* yang bersumber pada *law of association* dan menghasilkan *solid administration* antara *human, air, water and land* melalui tindakan konsolidasi (*solidify*).

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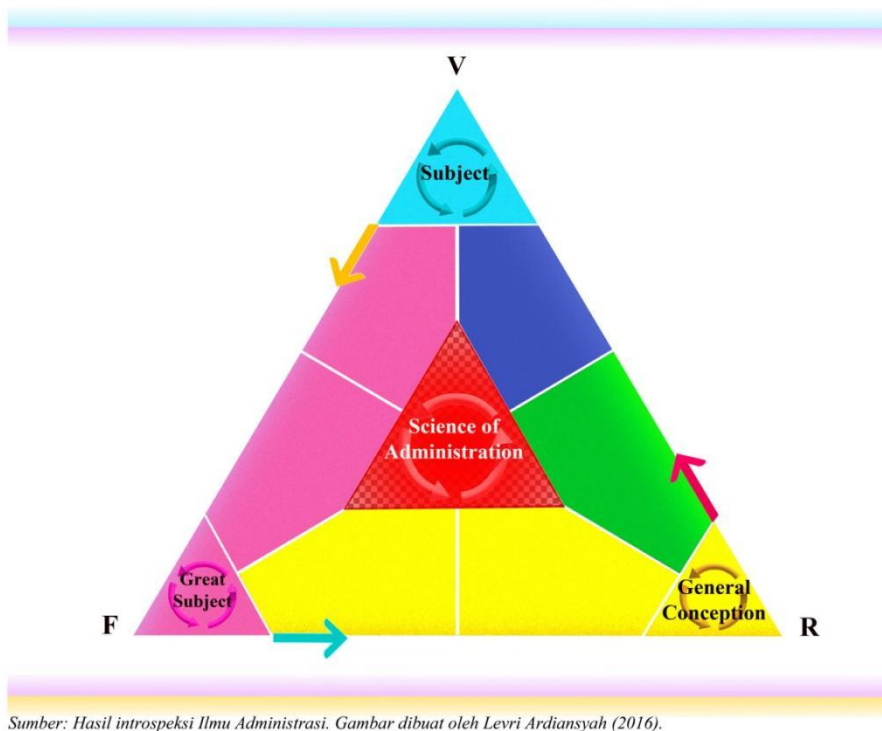
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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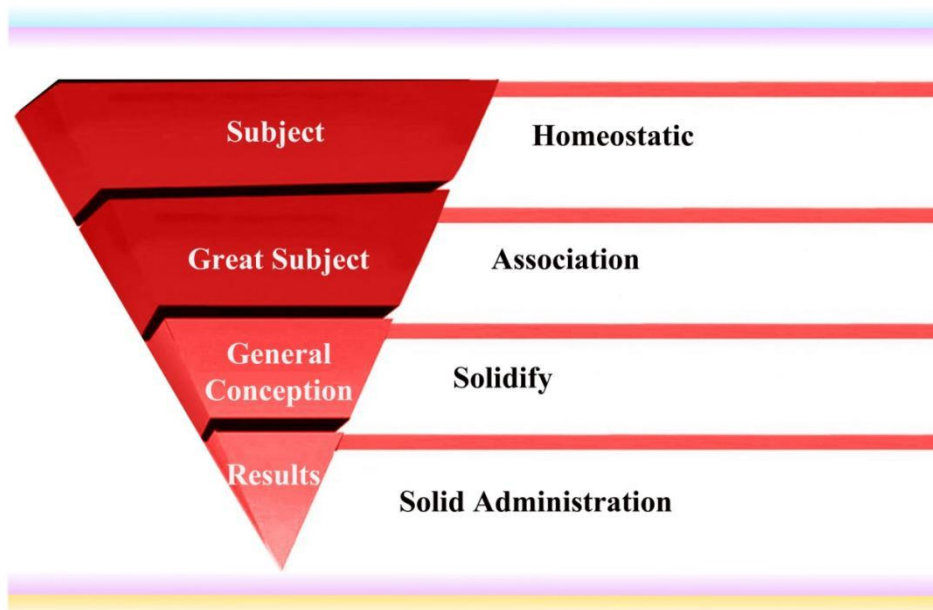
Diagram Subjek dan Konsep Ilmu Administrasi

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sejarah Ilmu Administrasi memang tidak merekam *homeostatic, association* dan konsep *solidify* sebagai *subject, great subject,* dan *general conception* Ilmu Administrasi, karena memang para ilmuwan belum menyepakati apa yang menjadi *subject, great subject,* dan *general conception* Ilmu Administrasi sebagai *Science of Administration.* Permasalahan mendasarnya adalah sulitnya para ilmuwan administrasi menemukan fakta administrasi dan membuktikannya secara ilmiah. Inilah yang menyebabkan Ilmu Administrasi tidak diakui sebagai ilmu, bahkan tidak termasuk dalam klasifikasi Ilmu Sosial.

Berdasarkan Diagram Subjek dan Konsep Ilmu Administrasi, kita dapat memetakan klasifikasi Ilmu Administrasi seperti ini:

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016)

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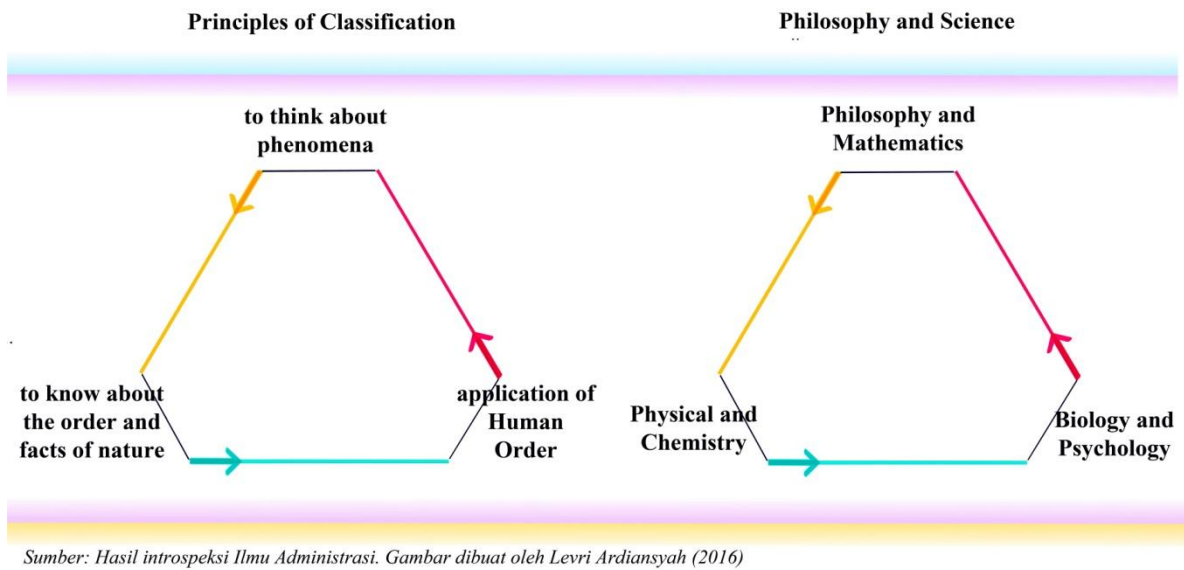
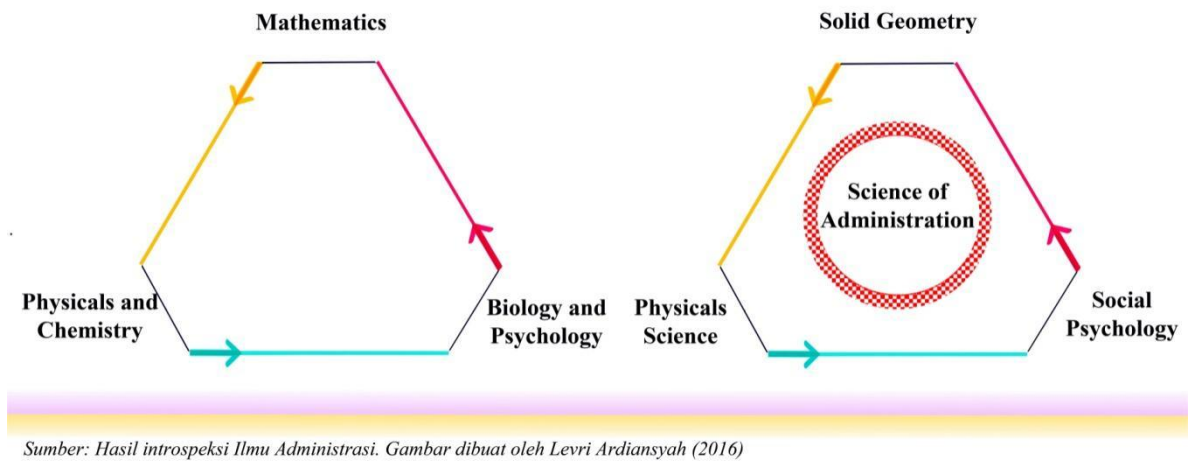
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016)

Berdasarkan komposisi Ilmu Administrasi, terlihat bahwa Psikologi Sosial lebih banyak memberi pengaruh pada Ilmu Administrasi dibandingkan dengan Solid Geometry dan Ilmu Fisika, sehingga dapat kita simpulkan bahwa Ilmu Administrasi termasuk dalam klasifikasi Ilmu Sosial yang satu rumpun dengan Psikologi Sosial. Dengan klasifikasi ini, administrasi dapat didefinisikan seperti ini: *administration is physical psychological science.*

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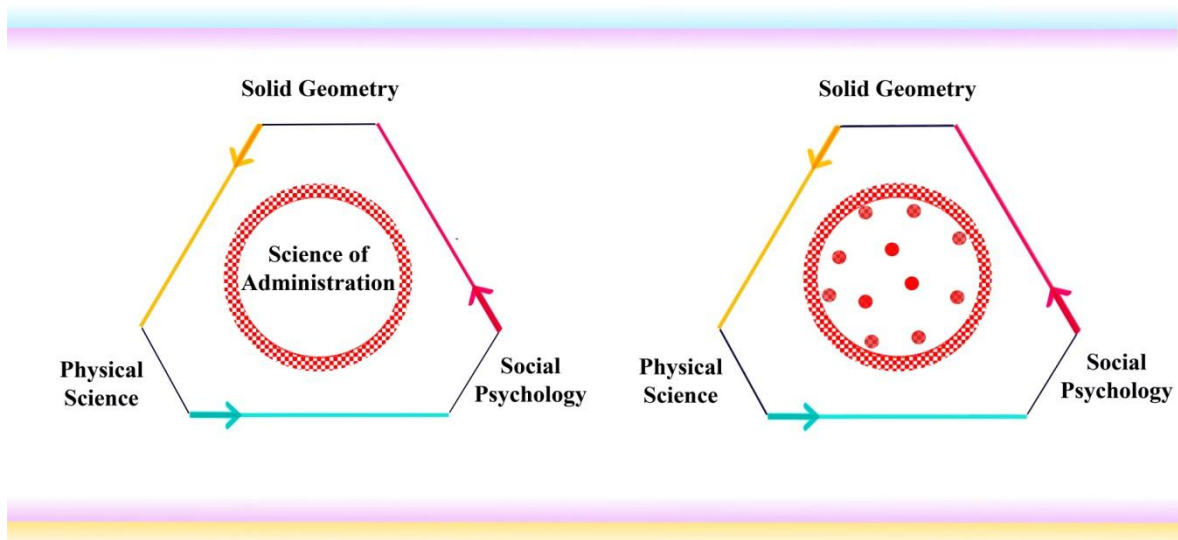
Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016)

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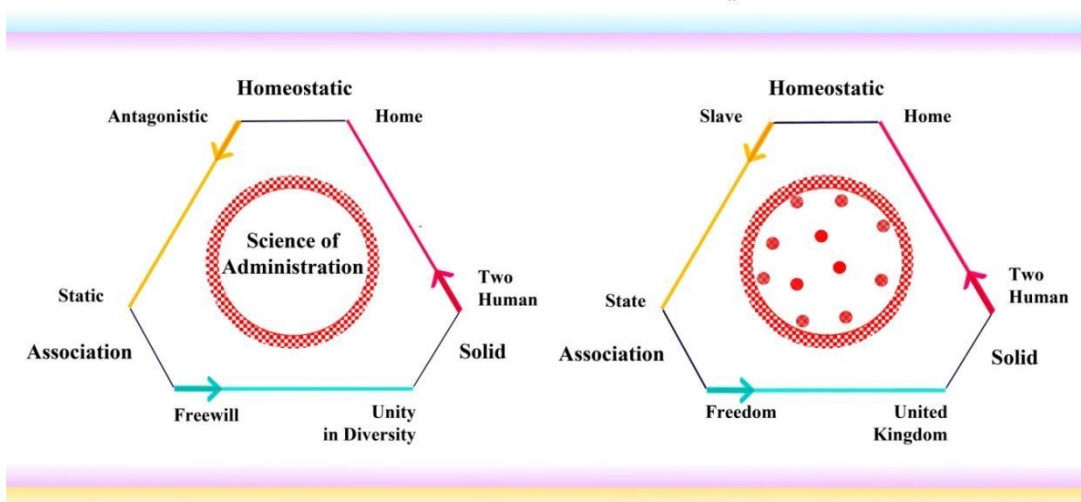
The Great Subject and the General Conception of Administration

Great subject untuk Ilmu Administrasi adalah *association* yang terdiri dari persamaan (*resemblance*), persinggungan (*contiguity*) dan perbedaan yang tajam (*contrast*). Berdasarkan perspektif Ilmu Administrasi, persamaan adalah 2 beda yang dipersamakan melalui fungsi operasi tertentu. Contoh persamaan adalah koperasi, perserikatan, institusi dan organisasi negara. Persinggungan adalah *network,* dan Perbedaan yang tajam antara kebebasan dan keterikatan dalam persatuan.

Elemen dari *great subject* ini merupakan bentuk nyata Ilmu Administrasi sebagai:

1. Ilmu Administrasi Negara (yang bersumber dari elemen *state*);
2. Ilmu Administrasi Komunitas (yang bersumber dari elemen *community, network* dan kebebasan)
3. Ilmu Administrasi Publik (yang bersumber dari elemen perserikatan dan instsitusi)

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016)

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General Conception dan Elemen-Elemennya

General conception dalam Ilmu Administrasi adalah konsep yang kebenaran ilmiahnya telah teuji mampu diterapkan secara umum dan meluas di berbagai tempat. Dari pengertian ini, ciri utama dari *general conception* ini adalah kemampuannya untuk diterapkan, sehingga menghasilkan produk yang padu (*solid*). *General conception* Ilmu Administrasi adalah *consolidation* yang hasilnya adalah *solid administration* dengan elemen-elemen seperti ini: (1) *human;* (2) *air;* (3) *water;* (4) earth dan (5) *fire.* Kelima elemen ini merupakan bentuk nyata Ilmu Administrasi sebagai:

1. Ilmu Administrasi Pendidikan, Kesehatan, Kependudukan, Pemakaman dan Ilmu Administrasi Silsilah Keluarga (yang bersumber dari elemen *human*);
2. Ilmu Administrasi Udara dan Antariksa (yang bersumber dari elemen *air*);

3. Ilmu Administrasi Kelautan dan Perairan (yang bersumber dari elemen *water*);
4. Ilmu Administrasi Pertanahan (yang bersumber dari elemen *earth*);
5. Ilmu Administrasi Sumber Daya Energi (yang bersumber dari elemen *fire*).
6. Ilmu Administrasi Kerajaan (yang bersumber dari elemen *earth / land / location*).

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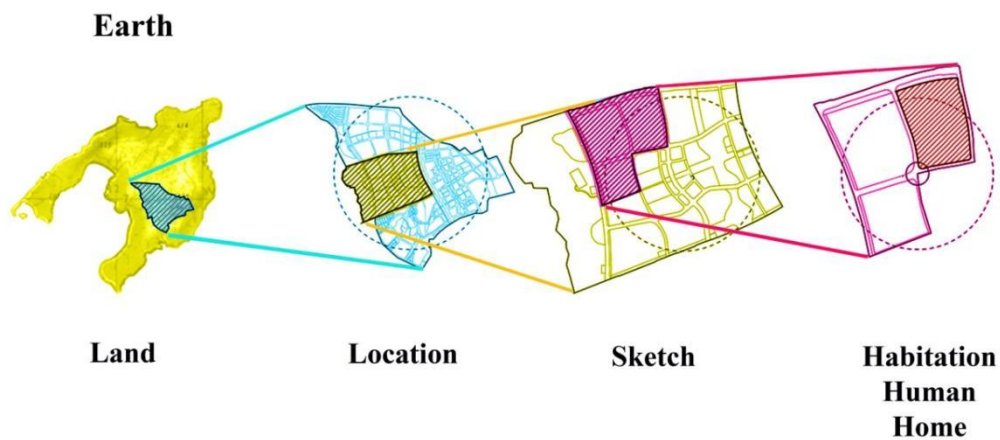
Elemen Bumi sebagai Administrasi Pertanahan

Earth

Land **Location** **Sketch** **Habitation Human Home**

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016/.

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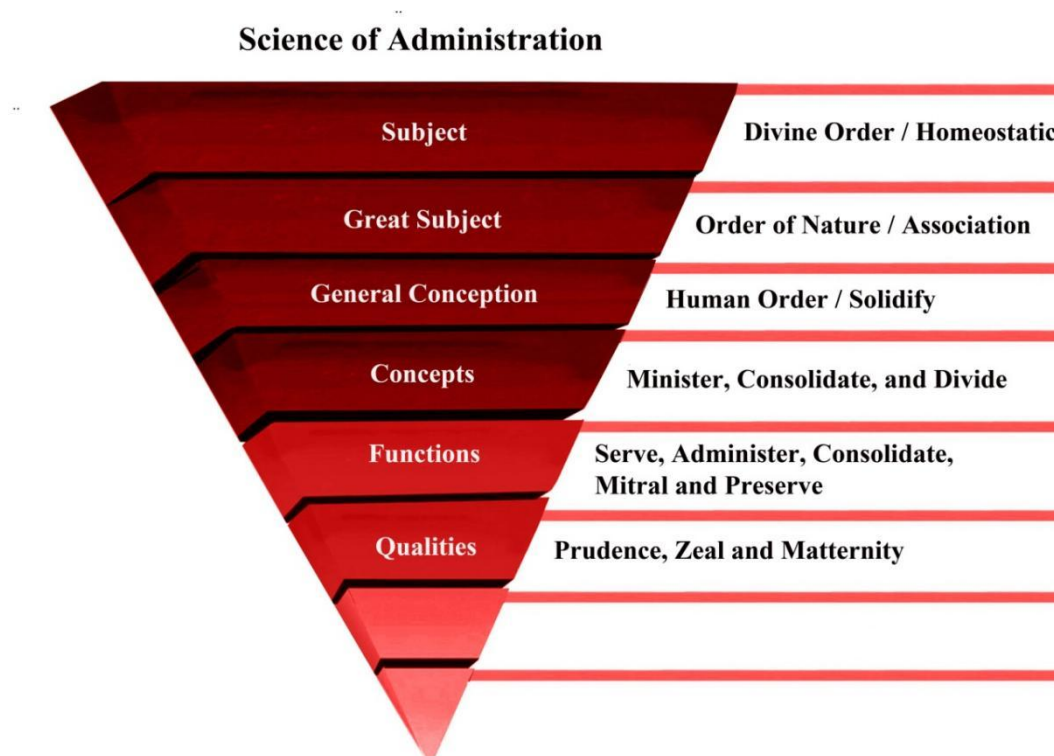
Karakteristik Ilmu Administrasi

Berdasarkan pada pandangan Aristotle, karakteristik administrasi adalah *prudence,* yaitu administrasi yang senantiasa berhati-hati dalam setiap proses dan progres.

Sumber: Hasil introspeksi Ilmu administrasi. Gambar dibuat oleh Levri Ardiansyah (2016)

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Science of Administration: Value, Facts and Results

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Science of Administration

Value	Facts	Result
Divine order	**Order of Nature**	**Human Order**
Contradiction	**Association** 1. Contrast 1.1. War Administration 2. Resemblance 2.1. Cooperation 3 Contiguity 3.1. Competition	**Solid** 1. Earth administration 1.1. Land Administration 1.2. Water Administration 2. Human Administration 3.1. School Administration 3.2. Health Administration 3.3. Tomb Administration
Homeostatic	**State** 1. State Administration 2. Coomunity Administration	**Two Administration** 1. State and Kingdom 2. Kingdom and Kingdom

Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016).

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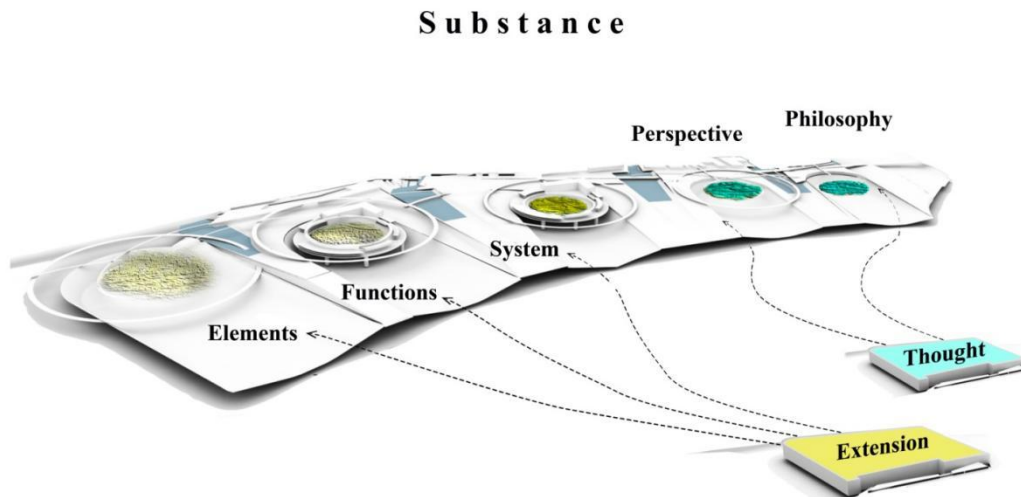
The Substance of Administration

Kerangka piker tentang substansi administasi dapat saya gambarkan seperti ini:

Sumber: Karya ilustrasi Levri Ardiansyah (2017) mengolah gambar dari www.asia.org

Secara filosofis, substansi terdiri dari 2 beda yakni (1) *thought* dan (2) *extension. Thought* merupakan pemikiran kita yang *pure contemplative intellect,* sedangkan *extension* adalah pemikiran berupa alam yang bebas untuk kita kaji. Merunut pemikiran pemikiran Leibniz, konsep tentang substansi merupakan 2 sistem atau aturan pergerakan (*the concept of substance as the substratum of two systems or orders of movement)* yakni (1) *inert* dan (2) *mechanical* atau yang (1) *contemplative* dan (2) *volitional.* Pada buku karya Carr, H. Wildon (1922: 10) berjudul '*A Theory of Monads Outlines of the Philosophy of the Principle of Relativity'* (London: Macmillan and Co, Limited) tercetak:

A very striking analogy to the modern scientific revolution is presented to us in the development of the Cartesian philosophy of the seventeenth century. That philosophy began with the distinction of two substances, thought and extension, the one corresponding to what we think of as pure contemplative intellect, the other to the independent object of contemplation, Nature. This philosophy arose when physics was differentiating itself from mathematics, following Galileo, and relying more and more on the experimental method. The philosophy of Descartes seemed to provide the very mechanistic basis of which science stood in need, the conception of a purely independent objective universe whose inmost constitution could be mechanistically explained. As a philosophy, however, we see it striving throughout its development, and continually failing, and finally completely failing, to discover any intelligible principle on which to establish the relation between the two substances which is presupposed in the concept of them. The dualism which science seemed so imperatively to demand proved unworkable. The way of escape was offered by Leibniz, but it involved a reform of the concept of substance itself. In place of the concept of substance as the substratum of two systems or orders of movement, one inert and mechanical, the other contemplative and volitional, Leibniz formulated the concept of substance as essentially active and dynamic. Reality was constituted, he said, of simple

Sumber: Carr, H. Wildon. 1922: 10. A Theory of Monads Outlines of the Philosophy of the Principle of Relativity. London: Macmillan and Co., Limited. Gambar disajikan oleh Levri Ardiansyah (2017).

Merunut pemikiran Leibniz (pada buku karya Carr, H. Wildon, 1922: 18), *a simple substance* merupakan substansi tanpa bagian-bagian (*without parts)* dan *simple substance* ini yang masuk kedalam komposisi. *substance essentially atomic* (25). *extended substance every part of which it open to influences propagated from every other parts* (31). *interactions of a material substance in a framework of three-dimensional space and one-dimensional time, a system in which every movement is exactly compensated by a reciprocal movement and every constituent or element is in causal relation with every other.* (31). *a simple substance, but substance conceived as an active subject owning its activities and not as a substratum of qualities or attributes. (35).*
It denies substance as inert substratum, but affirms substance as active subject of experience. (57). The effective criticism of the theory of atoms and the void is a main part of the philosophy of Descartes. It occupies a considerable portion of the Principles of Philosophy, and in fact furnishes the real ground of Descartes's theory that material substance consists in extension alone. It is impossible to

exaggerate the importance of Descartes's criticism of the idea of void and of its supposed necessary function in supplying a condition of the possibility of movement. The whole subsequent development of physical theory may be said to hinge upon it. (66). Material substance is extension and extension is not distinct from it ; it is not a void expanse spread out beneath it. (7). We may hold with Spinoza that extension is a mode of the infinite substance, God (81).

" From the beginning," wrote Leibniz, " God has made each of these two substances (the soul and the body) of such a nature that merely by following its own peculiar laws, received with its being, it nevertheless accords with the other, just as if there were a mutual influence, or as if God always put his hand thereto in addition to his general co-operation." It is quite impossible for us even to conceive the creative act which should bring the world into being, and we no longer seek the answer to our problem by reasoning about its nature or trying to fix its date. And this means that for us the concept of God has changed with the world-view, and as completely. It does not mean (82). concept of substance as subjective activity and not as an inert substratum, and in its insistence on inclusiveness (112)

Mind and matter, Spinoza held, are parallel modes in which two infinite attributes of a universal substance manifest themselves. Here, then, was a dilemma from which there seemed no escape, from which indeed there was no escape. Accept the concept of reality as twofold, that there are two independent substances, or two mutually exclusive attributes of one substance, and that these two substances or attributes are in a relation which brings it about that one represents the other and that other is representable to it, and there are two alternatives. Either the duality is fundamental existence, how then explain unity ? Or the unity is fundamental existence, how then explain diversity ? Leibniz saw that there was no issue from this dilemma and it indicated to him falsity in the underlying concept. He reformed the concept of reality by a new definition of substance. He rejected the static principle which the old concept implied and replaced it with a dynamic principle. A simple substance is a monad, a subject of experience, an active centre into which a universe is mirrored, whose activity consists in perception and appetition. From this reformed concept a whole new advance was possible. The point I wish to call attention 188)

Kant's philosophy, then, presents the aspect of failure : nevertheless it registers a distinct and notable advance. The a priori synthesis is a new concept. I have tried to show its historical origin in the two antithetical principles which were adopted by rival methods and reconciled in the critical method. Let us now look at its philosophical origin.

The concept of an a priori synthesis is in what is essential to it the concept of the monad. I do not mean that it is the historical evolution of the monadic concept of substance. I mean that it affirms a theory of knowledge which derives its whole force, and depends for the conviction it brings, on that concept. A synthesis before experience of factors, which in experience are presented as opposite in their nature, is only a rational idea if it is intended to affirm an original unity of nature, that is, a unity pertaining to the reality of the factors related in the synthesis. Try to (280)

the concepts of substance and cause, can now turn to the task of comprehending the nature and mode of activity. We need not try and follow the steps by which the new concept was reached. It was pre-eminently the work of Hegel. The new concept is the concrete universal ; the new method which that concept called for and revealed is the dialectic. In other words, we are given a new concept of the object of metaphysics and of the process of logic, and this involves a new view of the nature of logic and of the subject-matter of the science of logic. (284). The simplest reality we can bring before our mind, then, is a synthesis. The reality of this synthesis does not lie in the content or substance of its terms, but in the activity, the actual passing to and from thesis to antithesis, from antithesis to thesis, holding the factors together and keeping them apart. (290)
Pada buku karya Serbati, Antonio Rosmini (1883: 22) berjudul '*The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak '*In short, the substance (i.e. bodies) is conceived by us through the following reasoning: The sensible qualities could not exist without a support*' yang terbaca pada kutipan berupa gambar ini:

54. In short, the substance (*i.e.* of bodies) is conceived by us through the following reasoning :—' The sensible qualities could not exist without a support. But the sensible qualities exist ; our sensations advertise us of the fact. Therefore, that which supports them — the subject to which they belong, and which is called *substance*—exists also.'

Sumber: Serbati, Antonio Rosmini. 1883: 22. The Origin of Ideas. Vol. 1. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Dengan definisi ini, substansi memerlukan *support,* yakni *support system.* Pada administrasi, ini merupakan Sistem Administrasi.
Definisi lain yang lebih lengkap tertuliskan oleh Rosmini sebagai '*That by which a determinate being is what it is*'. Pada buku karya Serbati, Antonio Rosmini (1883: 230) berjudul '*The Origin of Ideas. Vol. 1I. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak:

A more perfect definition of substance.

657. From all the above we are enabled to give a more perfect definition of substance in general.

We have seen the distinction between ***abstract specific essence*** and ***full specific essence***. The first, we have said, when present to the mind, makes us know all which in a given ***determinate being*** is immutable, that is, which could not be changed without that being losing its identity, either by ceasing altogether to exist, or by becoming another before our mind.

Now, when in a given ***determinate being*** we think this immutable element which constitutes its abstract specific essence, and consider it in relation with the other element—the mutable—which is found united to it in the ***full specific essence***, then the ***abstract specific essence*** receives the name of ***substance***; because it is regarded as the element necessary to make the being what it is, as the act through which it subsists as such a being, and by which the mutable element is supported.

The substance therefore may be defined as 'That by which a determinate being is what it is,' or as 'The abstract specific essence considered in a determinate being,' that is, considered in relation to the full specific essences of that same being.

Sumber: Serbati, Antonio Rosmini. 1883: 230. The Origin of Ideas. Vol. II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Berdasarkan tulisan Rosmini tentang definisi *substance* ini, dapat saya interpretasi bahwa substansi administrasi merupakan hal yang menentukan administrasi menjadi apa.

Being

Being terdiri dari *the ideal* dan *the real. Ideal being* merupakan *the form of knowledge,* sedangkan *real being* merupakan *matter* atau *fact.* Pada buku karya Serbati, Antonio Rosmini (1883: 109) berjudul '*The Origin of Ideas. Vol. 1II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee'* (London: Kegan Paul, Trench & Co) tercetak:

ARTICLE IV.

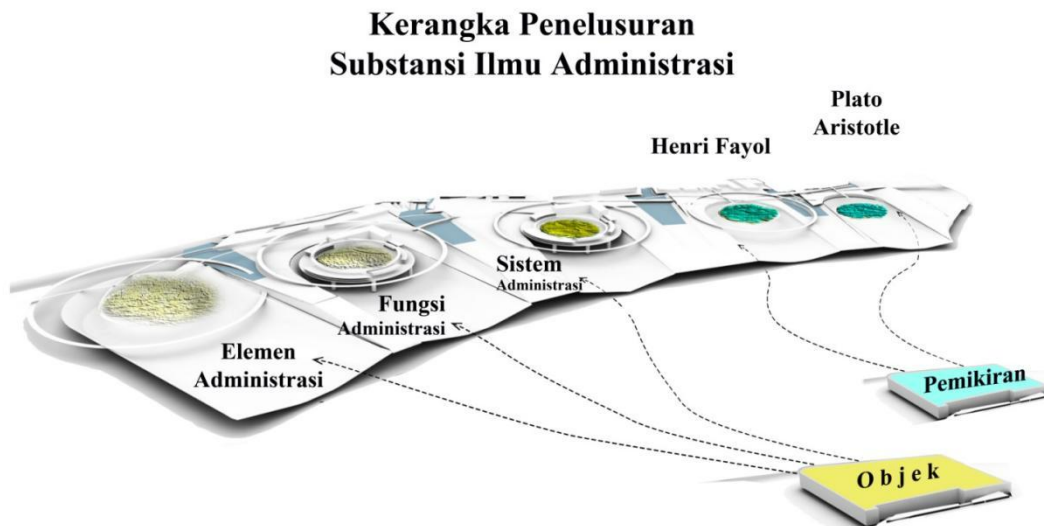
How the matter of knowledge is presented to our spirit.

1166. *Being* has two modes, the *ideal* and the *real*. *Ideal being* or *being in the ideal mode* is the *form* of knowledge; *real being* or *being in the real mode* is its *matter*, which I have designated by the general name of *fact* (1161).

We have just said that the *fact* which constitutes the matter of our knowledge is distinguished into two primitive species, the one consisting in the activity of *insensitive* being, and the other in the activity of *feeling* (1162, 1164), which may properly be called two species of *real being*.

Sumber: Serbati, Antonio Rosmini. 1883: 109. The Origin of Ideas. Vol. 1II. Translated from the Fifth Italian Edition of the Nuovo Saggio, Sulu Origine Delle Idee. London: Kegan Paul, Trench & Co. Gambar disajikan oleh Levri Ardiansyah (2017).

Kerangka penelusuran substansi Ilmu Administrasi terdiri dari:

1. Penelusuran pemikiran tentang administrasi yakni (a) berdasarkan pemikiran filosofis Plato maupun Aristotle dan (b) berdasarkan perspektif administrasi yang dinyatakan oleh Henri Fayol;
2. Penelusuran objek administrasi berupa (a) elemen-elemen administrasi; (b) fungsi-fungsi administrasi dan (c) sistem administrasi.

Sumber: Karya ilustrasi Levri Ardiansyah (2017) mengolah gambar dari www.asia.org

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The Element of Administration

Kata '*Element*' pada Bahasa *Old French,* berasal dari Bahasa Latin yakni kata '*Elementum*' yang berarti '*First principle*'. Kata '*Elementum*' ini terbentuk dari kata '*Elepantum*' berdasarkan pengaruh *Etruscan.* Pada buku karya Klein, Ernest., (1966: 507) berjudul '*A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume I A-K'* (Amsterdam London New York: Elsevier Publishing Company) tercetak:

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element, n. — OF (F. *élément*), fr. L. *elementum*, 'first principle, element'. Of the many etymologies suggested, the most probable is that which derives the word *elementum* fr. **elepantum*, 'ivory letter', an ancient Latin loan word fr. Gk. ἐλέφαντα, acc. of ἐλέφᾱς, 'elephant; ivory'. The change of **elepantum* to *elementum* is prob. due to Etruscan influence. See **elephant.**
Derivatives: *element-al*, adj. and n., *element-ary*, adj., *element-ari-ly*, adv., *element-ari-ness*, n.

elephant, n. — ME. *elifaunt*, *olifaunt*, fr. OF. *olifant* (F. *éléphant*), fr. L. *elephantus*, fr. Gk. ἐλέφᾱς (gen. -αντος). The first element of Gk. ἐλ-έφᾱς appears also in Hamitic *eḷu*, 'elephant', whence prob. Pers. *p-īl*, Arab. *ph-īl*, Mishnaic Heb. *p-īl*, of s.m. The second element is an Egyptian loan word. Cp. MEgypt. *yb*, 'elephant', whence *Yebu* (Heb. *Yēbh*), original name of the island Elephantine; cp. also the second element in Heb. *shen-habbím*, 'ivory', lit. 'tooth of the elephant', and OI. *íbhaḥ*, 'elephant'. See **ivory** and cp. **Eburna.** Cp. also **element.**
Derivatives: *elephantiac* (q.v.), *elephantiasis* (q.v.), *elephant-ic*, adj., *elephantine* (q.v.), *elephant-oid*, *elephant-ous*, adjs.

elephantiac, adj., one who has elephantiasis. — L. *elephantiacus*, rel. to *elephantiasis*. See next word.

Sumber: Klein, Ernest. 1966: 507. A Comprehensive Etymological Dictionary of the English Language Dealing with the origin of words and their sense development thud illustrating the history of civilization and culture. Volume II. Amsterdam London New York: Elsevier Publishing Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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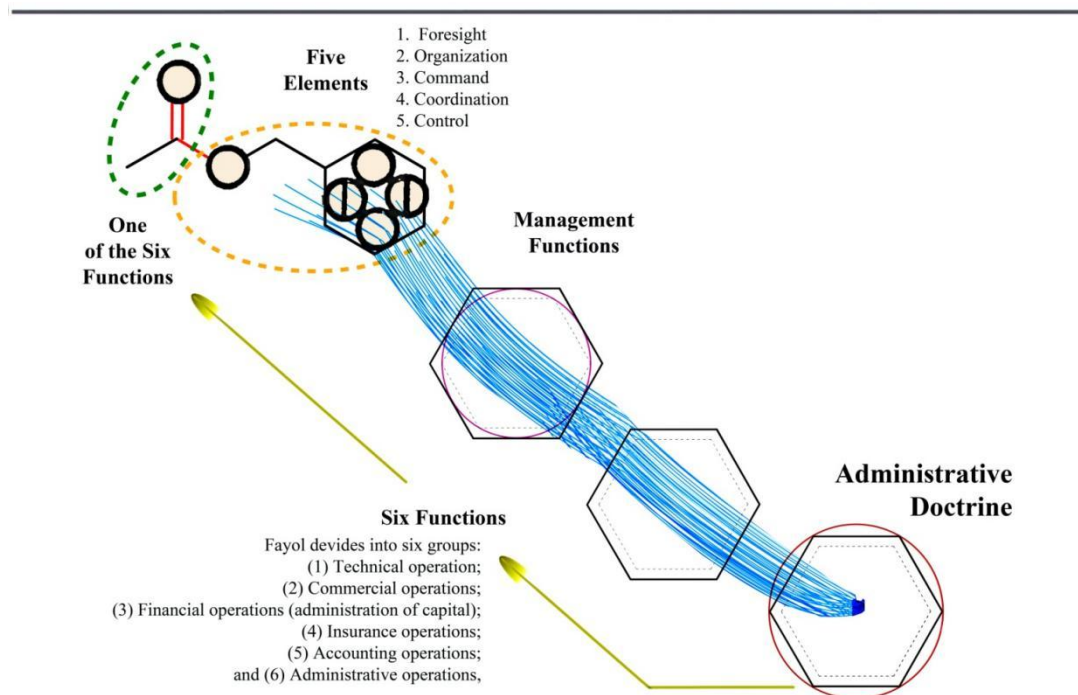
Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai gambar atom pada buku karya Dalton, John. 1808: 218. A New System of Chemical Philosophy. Part I. Manchester: S. Russell for R. Bickerstaff, Strand, London dan gambar latar diolah dari www.mclaneenv.com.

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Sumber: Hasil introspeksi Ilmu Administrasi. Gambar dibuat oleh Levri Ardiansyah (2016)

Dalam Matematika, *point* adalah *zero dimensions, line* adalah *one dimension, plane* adalah permukaan 2 dimensi yang analog dengan *point, line* dan ruang 3 dimensi (*three dimensional space*). Dengan definisi yang demikian ini, *plane* merupakan permukaan yang datar (*a plane is a flat*).

Dalam Ilmu Administrasi, *point* adalah tujuan, *line* adalah garis kerja dan *plane* adalah ruang tempat berlangsungnya kerja untuk mencapai tujuan. *Line* sebagai garis kerja merupakan kebijakan dalam bentuknya sebagai UU (termasuk UUD), dan peraturan hukum lainnya. Berdasarkan perspektif ini, maka dapat disimpulkan bahwa elemen pada subjek Ilmu Administrasi adalah: (1) Tujuan; (2) Policy dan (3) Ruang wilayah kerja.

The Functions of Administration

a

The Composition of Administration

a

The System of Administration

Pada buku karya Scheidegger, Adrian E (2004: 11) berjudul '*Morphotectonics'* (New York: Springer Verlag Berlin Heidelberg) tercetak '*System Theory'* diantaranya '*Dissipative Systems*' yang terkutip berupa gambar seperti ini:

1.2.3
System Theory

1.2.3.1
Dissipative systems

General remarks Thus, the evidence has been increasing that exogenic effects can be adequately described by the (quasi-) random action of exogenic agents. This has been shown to hold true for the meander formation, the surface erosion, the drainage basin development in unstructured plains and the large-scale decay of slope banks and mountain ranges (Scheidegger, 1979e). This is also the reason that it has been possible to describe landscape evolution by the application of *Stochastic General Systems Theory* which was developed originally by Bertalanffy (1932) for applications in connection with biological questions. In order to speak of a system, one needs (i) a set of elements identified with some variable attributes of objects, (ii) a set of relationships between attributes and objects, and (iii) a set of relationships between attributes of objects and the environment. Thus, "a system is a set of interrelated elements which function together as an entity embedded in an environment" (Harvey, 1969). The last condition assumes that the system is open to some external environment, which, however, is not necessarily the case.

The *Formal System Theory* is, in fact, a mathematical discipline. It is generally involved with statistical ("stochastic") methods. In geomorphology (Carso and Kirkby, 1972), one deals basically with mechanical systems: The objects are landforms (slopes, rivers, coasts), the attributes are quantifiable properties of these landforms (e.g. drainage density, slope declivity, meander curvature) and the "relationships" consist of mechanical exchanges of energy and mass between the landforms so that causal links are formed between the attributes. The distinction between the system itself and the "environment" is arbitrary and made by the observer. A natural delimitation occurs only in the case of systems that are completely closed; geomorphic systems, however, are not normally closed. The state of the system is defined by giving all the attribute values of all the elements; the set of all attribute values can be represented by a point in a multi-dimensional phase space. During the evolution of the system, this point will describe a trajectory in phase space. The number of elements is large and therefore the attribute values of each element cannot be ascertained in detail in practice. Therefore, there is a quasi-probability distribution of phase points which represent the position-likelihood of the system in phase space within the limits of one's knowledge. This probability distribution can be taken as the basis for statistical predictions of the behavior of the system. Within the limits of one's knowledge, a whole "ensemble" of states is possible. Because of some fundamental natural laws, e.g. conservation of mass (or energy), not all thinkable states in phase space are possible; these may be restricted to certain regions. An observable quantity is generally a crude characteristic built on a conglomerate function of attributes. The expected value for this observable quantity is the average of the conglomerate over all states of the system that are possible. On occasion, the conglomerate function has been calculated for those attributes that correspond to the most probable state of the system, but this is not in conformity with the principles of statistical physics as they were developed by Boltzmann and Gibbs in connection with gas dynamics (see e.g. Sommerfeld, 1964). Thus, the "most probable" and the "expected" characteristics are not the same; it is logically evident that ensemble averages have to be taken for the attributes, not those attributes for the most probable state of the system.

Sumber: Scheidegger, Adrian E. 2004: 11 & 12. Morphotectonics. New York: Springer Verlag Berlin Heidelberg. Gambar disajikan oleh Levri Ardiansyah (2017).

Pada buku karya Scheidegger, Adrian E (2004: 14) berjudul '*Morphotectonics'* (New York: Springer Verlag Berlin Heidelberg) tercetak '*Self-Ordering System'* yang terkutip berupa gambar seperti ini:

Self-Ordering Systems

The system theory, as described and applied above, is essentially based on the operation of the Ergodic Principle and the decay of closed dissipative systems. However, the Ergodic Principle evidently does not generally apply, inasmuch as the phase trajectories often do not range through the whole phase space, but are concentrated in the neighborhood of *attractors*. In effect, complex systems often develop some internal order spontaneously. The pertinent questions have been investigated in a new branch of science, called *complexity theory*.

In nature, there are innumerable examples of relatively stable self-organized ordered states at the edge of chaos (Bak et al., 1988). This applies particularly to landscapes: An ordered state at the edge of criticality establishes itself in a complex landscape system solely on account of the (normally highly non-linear) interactions between the individual elements of the system and not because of the presence of an external ordering principle.

The background of the above is the description of the natural systems in terms of the complexity theory. It is noted that the ultimate evolution of the system is determined by the attractors to which the trajectories converge. To define attractors in mathematical terms (Monin, 1991), one has to define *non-wandering phase points* whose neighborhoods intersect some phase trajectory at least twice; *invariant sets* (of phase points) which are filled with whole trajectories, and *minimal sets* which are nonempty closed invariant sets having no subsets with the same properties. Then, *attractors* are minimal sets Λ of nonwandering phase points having neighborhoods in which all the trajectories approach Λ asymptotically; attractors differing from stationary points and limit cycles are called *strange*.

Sumber: Scheidegger, Adrian E. 2004: 14 & 15. Morphotectonics. New York: Springer Verlag Berlin Heidelberg. Gambar disajikan oleh Levri Ardiansyah (2017)

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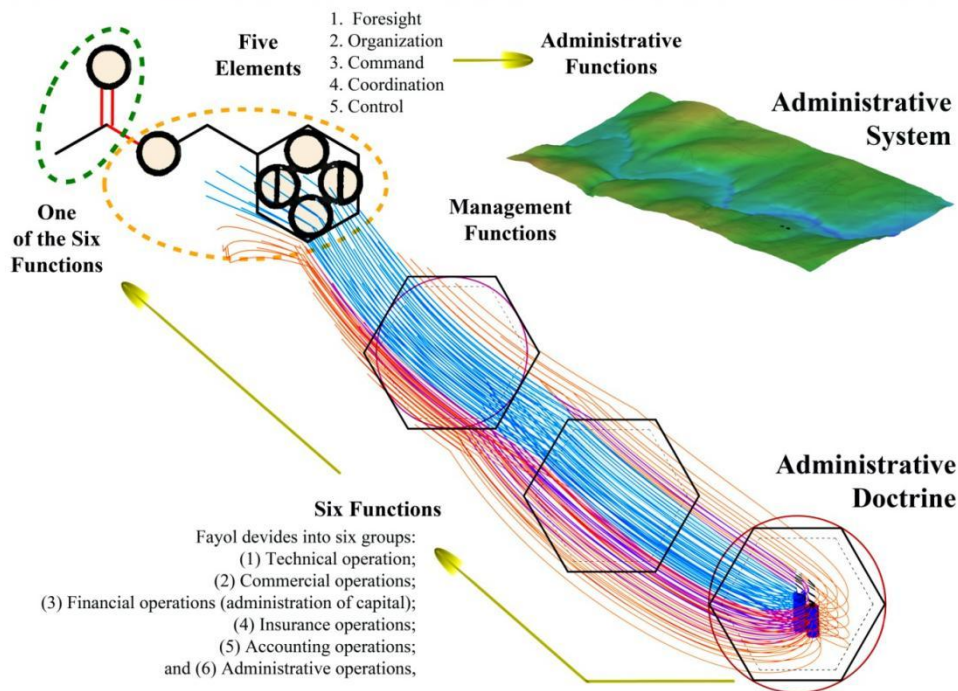
The System of Administration

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Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai gambar atom pada buku karya Dalton, John. 1808: 218. A New System of Chemical Philosophy. Part I. Manchester: S. Russell for R. Bickerstaff, Strand, London dan gambar latar diolah dari www.mclaneenv.com.

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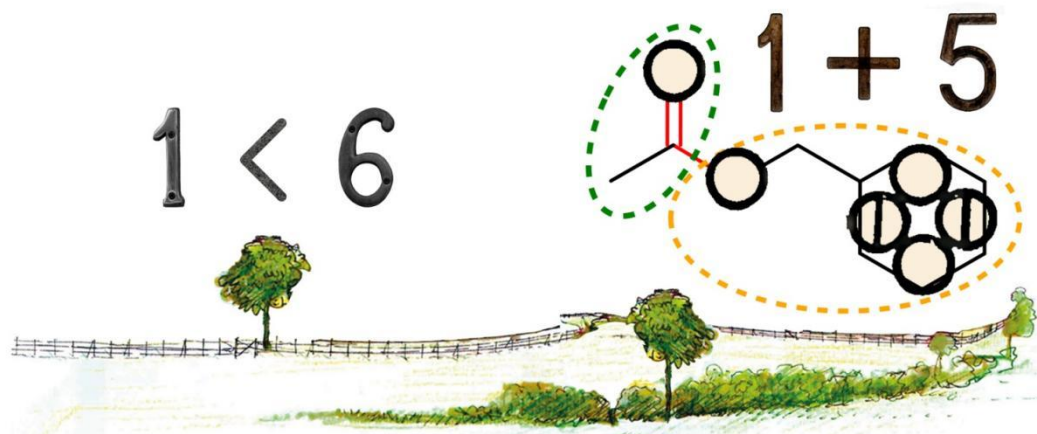
Dua Perspektif tentang Administrasi
'*as only One of the Six Functions*'

1. Administrasi lebih sempit dari manajemen;
2. Administrasi merupakan tata usaha;
3. Administrasi merupakan urusan rutin pemerintahan yang dijalankan eksekutif;
4. Administrasi merupakan tugas manajer pada perusahaan;

1. Administrasi merupakan *power of the functions;*
2. Manajemen merupakan fungsi bergeraknya Administrasi;
3. Administrasi merupakan totalitas prinsip, regulasi dan prosedur.

Sumber: Karya ilustrasi Levri Ardiansyah (2017) memakai gambar latar telah diedit dari https://www. taylorwimpey.co.uk.

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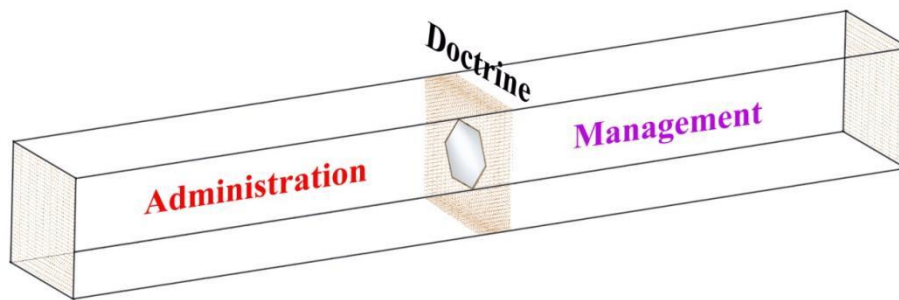
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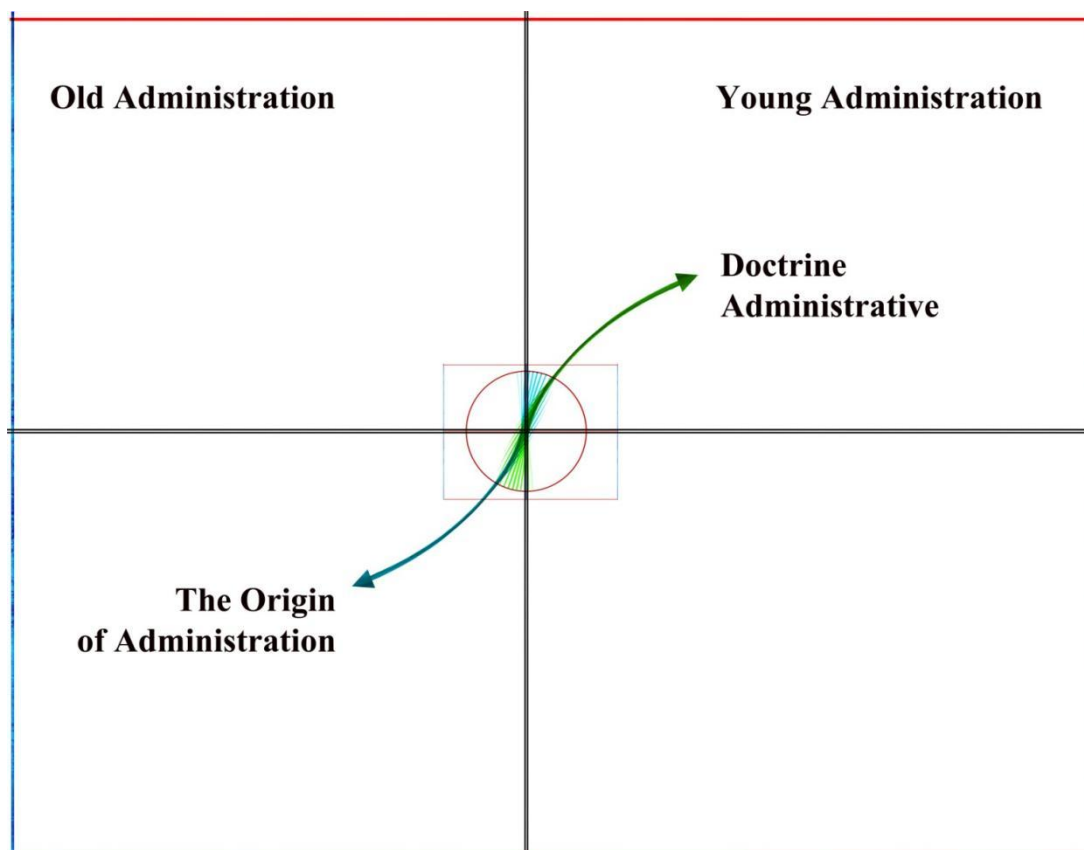
Simpulan

Sumber: Karya ilustrasi Levri Ardiansyah (2017).

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Crystalline Administration
Pada buku karya Wyssling, A. Frey (1953: 26) berjudul '*Submicroscopic Morphology of Protoplasm. Second English Edition*' (Amsterdam – Houston – London – New York: Elsepier Publishing Company) tercetak '*The essential nature of lattices is determined by the fact that certain locations of points, which in the more simple cases are identical with the centre of gravity of the atoms, periodically repeat themselves in three given directions in space. These directions coincide with the axes of the crystallographic system. The distance from one point to the next identical one is designated as the identity period or spacing. Depending on the crystallographic system, the spacings are the same in either three (cubic) or only two directions (tetragonal, hexagonal, rhombohedral), or they are different in all three dimensions (rhombic, monoclinic, triclinic). The regularly repeated points form an array of points*'. Kutipannya tergambar seperti ini:

a. *Crystal Structure*

Lattice. The essential nature of lattices is determined by the fact that certain locations of points, which in the more simple cases are identical with the centre of gravity of the atoms, periodically repeat themselves in three given directions in space. These directions coincide with the axes of the crystallographic system. The distance from one point to the next identical one is designated as the identity period or spacing. Depending on the crystallographic system, the spacings are the same in either three (cubic) or only two directions (tetragonal, hexagonal, rhombohedral), or they are different in all three dimensions (rhombic, monoclinic, triclinic). The regularly repeated points form an *array* of points. Displacing such a row by constant amounts in a direction either perpendicular or obliquely to its own direction, we obtain the *lattice plane*, while finally the *crystal lattice* results from displacing such a plane. If a point in the lattice is moved in the three principal directions, each time covering the identity period involved, and if the three vectors obtained are completed to a three-dimensional parallelepiped, we obtain the so-called *elementary* or *unit cell* of the crystal lattice. In analogy to a gas molecule, which represents the smallest unit with all the *chemical* properties of the gaseous phase, the unit cell is the smallest unit which still shows all *physical* and symmetry properties of the crystal. It may contain one or several molecules (and in the case of high polymers even parts of molecules). We are, therefore, dealing with a *geometrical* concept and by no means with a chemical one. If the unit cell is decomposed into its elements, the crystalline properties are lost. As the base cell possesses all the properties of the crystal, and this crystal can be obtained by displacing the elementary unit in the principal directions, structure analysis aims at determining the dimensions and the symmetry of the base. Its shape is determined by three identity periods a:b:c in Ångström units, to which in monoclinic and triclinic systems one must add the angle β, or the angles α, β, γ formed by the edges of the unit cell. The macroscopically determined proportions between the axes of the crystals agree with the proportions between the dimensions of the unit cell, provided analogous planes are considered.

Sumber: Wyssling, A. Frey. 1953: 26. Submicroscopic Morphology of Protoplasm. Second English Edition. Amsterdam – Houston – London – New York: Elsepier Publishing Company Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Wyssling, A. Frey (1953: 27) berjudul '*Submicroscopic Morphology of Protoplasm. Second English Edition*' (Amsterdam – Houston – London – New York: Elsepier Publishing Company) tercetak '*Crystal lattice*' seperti ini:
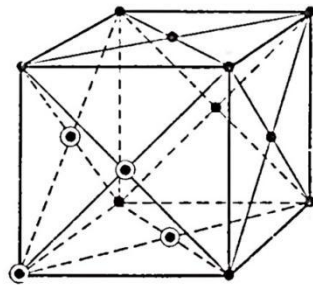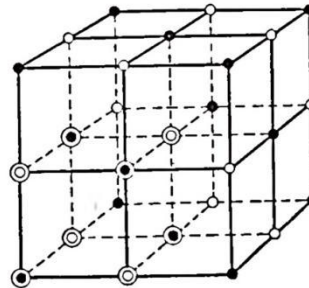
Fig. 25 Fig. 26

Crystal lattices. The encircled points belong to the unit cell

Fig. 25. Gold. $a = 4.07$ Å, ⊙ Au – Fig. 26. Sodium chloride. $a = 5.60$ Å, ⊙ Na, O Cl

Figs. 25 and 26 represent two of the best-known lattices, viz. that of the element gold and of the compound sodium chloride. Both lattices are cubic: this means that the dimensions and shape of the unit cell are determined by a single identity period a which is the same in three mutually perpendicular directions. Once the spacing a has been determined by means of X-rays, the volume a^3 and, from the known density of the crystalline substance, the weight of the unit cell can be calculated. Dividing this weight by the absolute weight of the atom or molecule in question (= atomic or, as the case may be, molecular weight/LOSCHMIDT's number $0.606 \cdot 10^{24}$), one finds the number of atoms or molecules in the unit cell.

Sumber: Wyssling, A. Frey. 1953: 27. Submicroscopic Morphology of Protoplasm. Second English Edition. Amsterdam – Houston – London – New York: Elsepier Publishing Company Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Wyssling, A. Frey (1953: 27) berjudul '*Submicroscopic Morphology of Protoplasm. Second English Edition*' (Amsterdam – Houston – London – New York: Elsepier Publishing Company) tercetak '*The atomic distances in the lattices of elements correspond, therefore, to the atomic diameters and in binary compounds they represent the sum of the radii of the two partners (Goldschmidt). In this way it has been possible to determine the volume occupied by various atoms and at the same time to find an explanation for the different co-ordination numbers.*'. Kutipannya tergambar seperti ini:

2 PRINCIPLES OF STRUCTURE 29

microscopic morphology of organic compounds. It has been shown that the lattice points in Figs. 25 and 26 represent only the centres of gravity of the atoms. The range of their electron orbits, however, extends over such large volumes, that these can be represented by spheres touching each other in the lattice (Figs. 27–29). A crystal

Fig. 27 Fig. 28 Fig. 29

Co-ordination numbers (from MAGNUS, 1922)
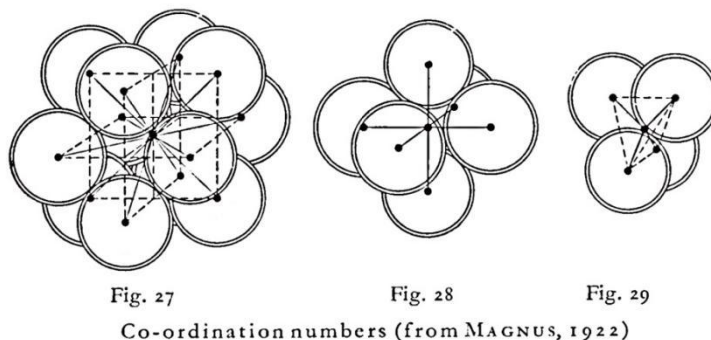
Fig. 27. Number 12; e.g., Au $(Au)_{12}$ in crystallized gold – Fig. 28. Number 6; e.g., $Na(Cl)_6$ in sodium chloride; $Fe(CN)_6$ as ion – Fig. 29. Number 4; e.g., CCl_4, $C(C)_4$ in diamond.

lattice, therefore, which is kept together by main valencies is much more closely packed than the common pictures suggest. Unfortunately, the representations in space obtained by drawing continuous spheres instead of lattice points are not very illuminating, whereas in a plane this procedure can be applied with great success (comp. Fig. 31, p. 34). The atomic distances in the lattices of elements correspond, therefore, to the atomic diameters and in binary compounds they represent the sum of the radii of the two partners (GOLDSCHMIDT). In this way it has been possible to determine the volume occupied by various atoms and at the same time to find an explanation for the different co-ordination numbers. E.g., four Cl-atoms combined in a tetrahedron together enclose a space which just corresponds to the size of a silicon atom; this accounts for the co-ordination number 4 in the compound $SiCl_4$. Of the smaller fluorine atoms, however, we need 6 spheres to obtain the space occupied by one Si-atom. Hence the co-ordination number 6 (SiF_6).

Sumber: Wyssling, A. Frey. 1953: 29. Submicroscopic Morphology of Protoplasm. Second English Edition. Amsterdam – Houston – London – New York: Elsepier Publishing Company Gambar disajikan oleh Levri Ardiansyah (2017).

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c. 1400, "to bind (solid bodies) together with or as with cement," from **cement** (n.) or Old French *cimenter*. Figurative sense "to unite firmly" is from c. 1600. Related: *Cemented*; *cementing*

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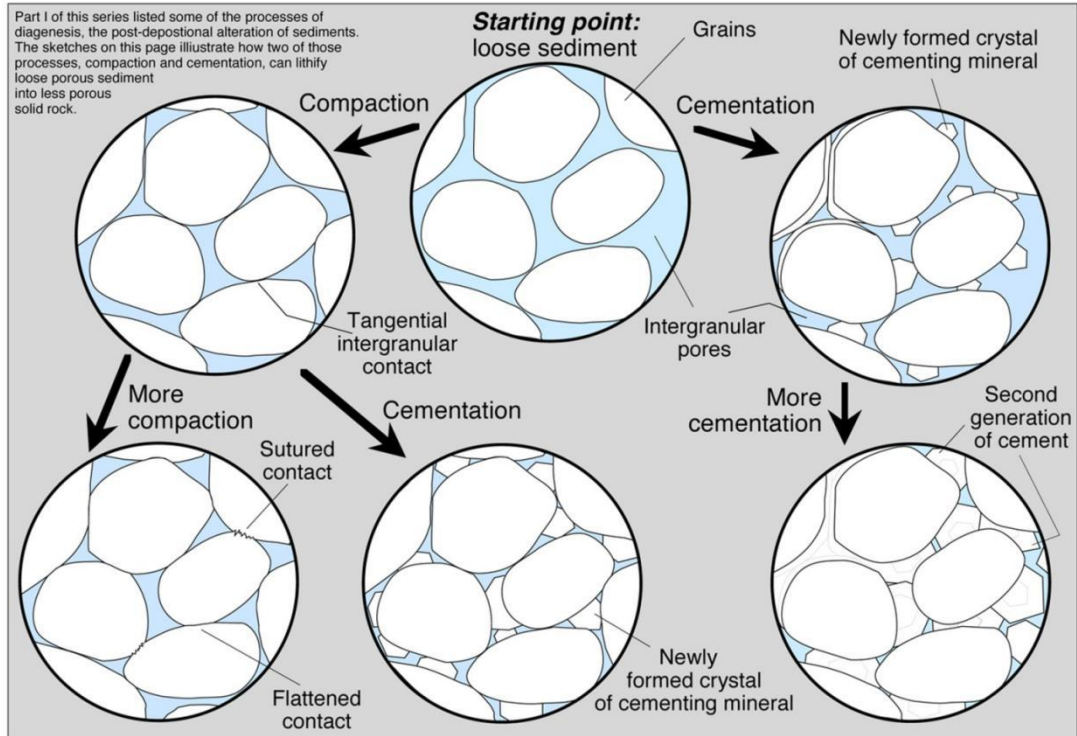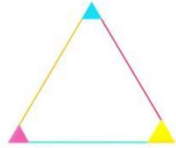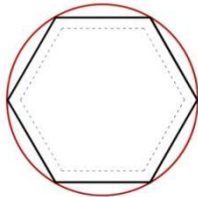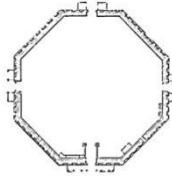
Sumber: www.gly.uga.edu. Gambar disajikan oleh Levri Ardiansyah (2017).

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The Windows of Administration

Menistre	**The Essence of Administration** **1.** Name 2. Specific Characters 3. Intrinsic Nature	**Service**
	The Substance of Administration 1. Elements 2. Functions 3. System 4. Composition	**System**
	The Principles of Administration 1. Resemblance 2. Contiguity 3. Similarity 4. Contrast 5. Consolidation 6. Division	**Association**
	The Foundation Stone of Administration 1. Family 2. Location 4. Place 5. Wealth of Nation 6. Culture 7. Language 8. Heritages	**Institution**

Sumber: Karya ilustrasi Levri Ardiansyah (2017).

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The origin of serve is sacrifice yakni *to serve God.* Pada buku karya Davison, John (1823: 133) berjudul '*An Inquiry into the Origin and Intent of Primitive Sacrifice, and the Scripture Evidence Respecting it, with Observations on the Opinions on Spencer, Bishop Warburton, Archbishop Magee and other Writers on the Same Subject and some Reflexions on the Unitarian Controversy'* (London: John Murray, Albemarle Street) tercetak:

Human Origin of Sacrifice not injurious, &c. 133

Sacrificial Worship could not disqualify that mode of worship for a place in the ordinances of the Mosaic Religion, unless the Rite itself were founded in some error of belief, or obliquity of practice. That no such error, or obliquity, can be imputed to the simple characteristics of Sacrifice, when employed as a rite of Eucharistic Worship, or of Penitence and Intercession, has been sufficiently argued already. And unless it can be shown that it was a dangerous heresy, fit to be disowned, which taught men to serve God with oblations of Praise and Prayer, or that the presentation of some portion of his Gifts, devoted again to his honour, or the substitution of a dying Victim, offered to express the self-condemnation of the Suppliant, were unreasonable and faulty modes of exhibiting those sentiments of Gratitude, and Intercession; it must be granted that both the Form and the Intent of the prior worship would acquit it of any heinous offence, on the part of Man, which should subject it to the necessary rejection and reprobation of God in the positive appointments of his own Law.

Sumber: Davison, John. 1823: 133. An Inquiry into the Origin and Intent of Primitive Sacrifice, and the Scripture Evidence Respecting it, with Observations on the Opinions on Spencer, Bishop Warburton, Archbishop Magee and other Writers on the Same Subject and some Reflexions on the Unitarian Controversy. London: John Murray, Albemarle Street. Gambar disajikan oleh Levri Ardiansyah (2017).

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The Six Foundations of Administration

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The Principles of Administration

Pada buku karya Waldo, Dwight., (1948: 162, 163 & 164) berjudul '*The Administrative State A Study of the Political Theory of American Public Administration'* (New York: The Ronald Press Company) tercetak:

Principles of Public Administration

It would be impossible to prove, beyond question, that "principles" in public administration in more recent times have been higher-law concepts; the case can only rest upon the similarity of the language. But it would be more difficult to prove to a disinterested spectator that they actually have the sanction that is claimed for them—that of science. Before inquiring what "science" is, however, it will be instructive to note the traditional treatment of

[5] *Government of Municipalities* (New York), 5.

[6] "The Study of Administration," 2 *Pol. Sci. Q.* (June, 1887), 197–222, 210. "The empirical influences which now pervade the sphere of government will also decline, and the management of public affairs will take on a more scientific character." H. J. Ford, *The Rise and Growth of American Politics* (New York: 1898), 371.

[7] *Education for Public Administration* (Chicago: 1941), 57. The similar treatment of "principles" by public administration and scientific management, as well as borrowings from scientific management at this point, was discussed in Chapter 2. See N. A. Brisco's, *Economics of Efficiency* (New York: 1914), 93 and 102. *Cf.* H. J. Bruere, *The New City Government* (New York: 1912), 368; and M. L. Cooke, *Our Cities Awake* (Garden City: 1918), 97.

"principles" by administrative writers; and the extent and nature of revolt against principles among administrative writers.

Principles in Theory.—Best known of the writers giving prominence to the notion of principles is W. F. Willoughby. Any student of the subject would be blind to overlook Willoughby's real contributions to administrative study. But he would be mistaken if he thought Willoughby's statements on methodology a contribution, or that Willoughby's real contribution has any but a purely formal connection with the methodology he professes.

Administration, wrote Willoughby in 1919 when the discipline was struggling for existence and needed every scrap of prestige, is "if not a science, a subject to the study of which the scientific method should be rigidly applied."

> Though the problems of administration are of great complexity and vary with the conditions under which each operation of government is carried on, there are certain fundamental principles and practices which must obtain in all governmental undertakings, if efficiency and economy in operation are to be secured.[8]

For the solution of the problems of public administration it must be recognized that two things are necessary:

> First, a greater fund of exact information than has heretofore been available; second, the formulation and adoption of scientifically determined principles of administrative organization and procedure.[9]

In 1937 Willoughby made a formal statement of his views about science and the discovery of principles. "There are," he wrote, "fundamental principles of general application, analogous to those characterizing any science, which must be observed if the end of administration, efficiency in operation, is to be secured; and . . . these principles are to be determined, and their significance made known, only by the rigid application of scientific methods."[10] If true principles can be established and "brought home to those responsible for determining governmental conditions, a great improvement in the manner in which public affairs are conducted will result."[11] In short

[8] Introduction to G. A. Weber's *Organized Efforts for the Improvement of Methods of Administration in the United States* (New York: 1919), 30 (citations by permission of The Brookings Institution).

[9] *Ibid.*, 8.

[10] "The Science of Public Administration," in *Essays in Political Science* (Baltimore: 1937), J. M. Mathews and J. Hart, eds., 39–73, 39 (by permission of Johns Hopkins Press).

[11] *Ibid.*, 42–43. This is reminiscent of Calvin Coolidge's classic dictum, "The business of the legislature is to discover economic laws, and to enact them."

"administration constitutes a science in the sense that it is a subject that needs to be inquired into in a scientific spirit, and that it comprehends fundamental principles that can only be established when studied in this scientific manner."[12]

Sumber: Waldo, Dwight. 1948: 162, 163 & 164. The Administrative State A Study of the Political Theory of American Public Administration. New York: The Ronald Press Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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Pada buku karya Waldo, Dwight., (1948: 164) berjudul '*The Administrative State A Study of the Political Theory of American Public Administration'* (New York: The Ronald Press Company) tercetak:

Principles in Practice.—The manner in which "principles" has characteristically been applied to the subject matter of administration can be illustrated by excerpts from the writings of Harvey Walker. Walker's treatment is selected because it is typical of statements by other writers who have used the term without definition or explanation. "The principles of public administration," he writes in 1933, explaining American conceptions to British students, "are derived from the most successful technique used in governments or in private business. For convenience they are classified under the following heads: (1) organization, (2) budget, (3) accounting and auditing, (4) purchasing, (5) personnel, and (6) miscellaneous services. . . ." [13] In his *Public Administration in the United States* he undertakes to state the principles of organization. "The first . . . is that administrative work may be most efficiently organized by function." (This seems to assert something "scientifically" true of any organization.) "A second principle which must be followed in setting up and operating an administrative mechanism in a democracy is that every officer should be responsive to public control." (Since it rests upon a philosophy of government, this is obviously normative.) "A final principle is that staff and line activities should be separated and the staff functions placed under the immediate control of the chief administrative officer of the government." [14] (Is the sanction moral or physical?) A little later he notes that "the organization of the British city violates most of the principles of public administration accepted in the United States" [15]—yet, he says, it works admirably!

Sumber: Waldo, Dwight. 1948: 164. The Administrative State A Study of the Political Theory of American Public Administration. New York: The Ronald Press Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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Two Kinds of Principles

Merunut pemikiran tulisan Herman Finer pada buku karya Waldo, Dwight., (1948: 168) berjudul '*The Administrative State A Study of the Political Theory of American Public Administration'* (New York: The Ronald Press Company) terbaca bahwa *principles* terdiri dari 2 jenis yakni (1) *the principle which is an "objective scientific statement of cause and effect";* dan (2) *the principle that is a norm, a moral precept—"a statement of values and final design".* Kutipannya tergambar seperti ini:

Herman Finer: Logical Distinction.—One of the more acute treatments of "principles" is that of Herman Finer—an Englishman—in his essay "Principles as a Guide to Management." There are, he states, two kinds of principles. There is the principle which is an "objective scientific statement of cause and effect." [25] There is also the principle that is a norm, a moral precept—"a statement of values and final design." The two types are related, for the first type "is partly based upon the second type . . . because in our everyday lives we are not merely guided by what is desirable, but are compelled by what is possible. And we plane down our desires and values by what is possible." [26] The causative principle need not be as definite as a law of physics. It is a guide to action, an indication of cause and effect from the "accumulated teachings of actual experience." Knowledge accumulates with experience; and it is a simple and non-controvertible fact that there is a fund of knowledge with respect to cause and effect in the field of management that will aid a manager in achieving moral principles for which he may be striving. In some cases, it is possible to generalize with almost mathematical certainty, if x, then y. But even where no such definiteness exists, study and thought reveal probabilities, probabilities that can be utilized in public administration.

Sumber: Waldo, Dwight. 1948: 168. The Administrative State A Study of the Political Theory of American Public Administration. New York: The Ronald Press Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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Instability Principle

Pada buku karya Scheidegger, Adrian E (2004: 4) berjudul '*Morphotectonics'* (New York: Springer Verlag Berlin Heidelberg) tercetak '*Instability Principle*' yang terbaca '*The idea that antagonistic processes roughly balance each other in a stationary dynamic geomorphic state has to be modified by the observation that this 'balance' is quite often unstable (Scheidegger 1983a)* ' yang terkutip berupa gambar seperti ini :

Instability principle

The idea that antagonistic processes roughly balance each other in a stationary dynamic geomorphic state has to be modified by the observation that this "balance" is quite often unstable (Scheidegger 1983a). Apart from the fact that individual surface features tend to be impermanent, even though their overall appearance may seem to be constant, the dynamic equilibrium may actually be inherently unstable: Any deviation from uniformity tends to grow, and there is, so to speak, a positive feedback between the size of the deviation that has already been reached and the rate by which this size increases. The formalism to analyze instabilities in geomorphology was probably initiated by Slingerland (1981) who investigated (random) deviation in a dynamic landscape system. Although the dynamic equations of the system are unknown, the (presumably) nonlinear differential equations can be linearized for the purpose of stability analysis according to Taylor (1950), at least in the vicinity of the deviation for a short time range. Then, for any parameter $x(t)$ describing a landscape feature, the solution of the differential equation is an exponential function of time and thus the growth equation at the beginning has the form

$$x(t) = C\exp(\lambda t) \,, \quad (1.2)$$

in which C is a constant. If λ is positive, the condition is unstable, the deviation $x(t)$ grows exponentially and the value of λ is a measure of the degree of the instability. The exponential function would increase infinitely so that it would, by implication, lead to a catastrophic situation. However, the linearization holds true only for short time ranges so that an unstable state need not necessarily lead to a catastrophe: the growth process may eventually come to a stop when a saturation stage is reached.

Sumber: Scheidegger, Adrian E. 2004: 4. Morphotectonics. New York: Springer Verlag Berlin Heidelberg. Gambar disajikan oleh Levri Ardiansyah (2017)

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Pada buku karya Scheidegger, Adrian E (2004: 5) berjudul '*Morphotectonics'* (New York: Springer Verlag Berlin Heidelberg) tercetak '*Catena Principle*' yang terbaca '*In effect, such sequences are "Chains" (Latin "Catenae")*' dengan kutipan berupa gambar seperti ini :

Catena Principle

Statement The Catena Principle is very closely related to the Instability Principle. We have already mentioned above that the latter leads to such features as terraced valleys and sequences of riffles and pools in river beds. In effect, such sequences are "chains" (Latin "catenae") of geomorphological elements that are repeated again and again; this is the consequence of instabilities that arise at certain points but reach a "saturation stage" so that the corresponding features are repeated in a sequence. This can be expressed as a separate principle, viz. the *Catena Principle* (Scheidegger, 1986). The concept of a catena was originally devised by Milne (1935, 1947) in soil research who noted that certain definite sequences (catenas) of soil types recur on a slope; it was then adopted generally for self-repeating morphological features. In particular, the Catena Principle has been applied to *hydrological* elements on "slopes" (this includes the course of a river or gully). The fundamental elements of a catena are best observed on a single, solitary, free slope. Fundamentally, a catena (Fig. 1.2) encompasses an *eluvial* region (I) at the top (of flat topography with a lip), a *colluvial* region (II) in the middle (of steep topography with large mass flow rates) and an *alluvial* region (III) at the bottom (again of flat topography). The catena principle then states that the whole landscape is made up of catenas each of which consists of a sequence of flat-steep-flat sections.

Sumber: Scheidegger, Adrian E. 2004: 5. Morphotectonics. New York: Springer Verlag Berlin Heidelberg. Gambar disajikan oleh Levri Ardiansyah (2017)

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Pada buku karya Scheidegger, Adrian E (2004: 7 & 8) berjudul '*Morphotectonics'* (New York: Springer Verlag Berlin Heidelberg) tercetak '*Selection Principle*' yang terbaca '*... exogenic processes of the antagonistism principle operate under certain circumstances in a directed fashion without an actual external (exogenic) influence being present'* yang terkutip berupa gambar seperti ini:

Selection Principle

Statement Totally different types of phenomenological landscape development result from mechanical stresses. Some of the most striking features in landscapes are single towers, tors and pillars: Gerber (1969) has noted that these features have forms that are inherently statically stable under the action of their own weight. He enounced this as the *Selection Principle* which refers to the observation that the exogenic processes of the Antagonism Principle operate under certain circumstances in a directed fashion without an actual external (exogenic) influence being present. It states: *during the weathering processes in a landscape, those morphological elements remain that ensure the static stability of the resulting features.* The formation of statically favourable forms is, thus, the result of a natural selection process in the sense that of the multitude of forms created by erosion, those remain for the largest period of time which are the most stable with regard to the self-gravitational (not tectonic) geostatic stresses.

Sumber: Scheidegger, Adrian E. 2004: 7 & 8. Morphotectonics. New York: Springer Verlag Berlin Heidelberg. Gambar disajikan oleh Levri Ardiansyah (2017)

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The Definition of Administration
Merumuskan Definisi Administrasi
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Sederhananya, definisi adalah penjelasan singkat tentang suatu benda dengan batasan tertentu. Manakala suatu benda (*the thing*) yang ingin didefinisikan tidak ada atau merupakan interpretasi filosofis tentang kondisi sosial maupun institusi atau merupakan peramalan adanya berdasarkan perkembangan yang terjadi pada masyarakat, tentu saja sangat sulit untuk menentukan definisinya. Ihwal sulitnya pendefinisian ini pernah dialami saat para ahli Sosiologi merumuskan definisi tentang sosialisme. Pada buku karya Spargo, John & Arner, George Louis., (1916: 4) berjudul '*Elements of Socialism a Text Book'* (New York: The Macmillan Company) tercetak:

Difficulties of definition: It is not an easy matter to formulate a satisfactory definition of Socialism. The task has been attempted by numerous writers, friendly and otherwise. That the definitions of Socialism by its advocates differ considerably from each other has been made the basis of much rather unreasonable criticism. A definition is simply a brief explanation of the thing defined. When the thing to be defined is at once a comprehensive criticism of society, a philosophy interpreting the social conditions and institutions criticised, a forecast of the future development of society, and a movement with a program based upon these and intended to remove the evils complained of and to bring about the social ideal forecasted, definition is necessarily very difficult and hazardous.

Sumber: Spargo, John & Arner, George Louis. 1916: 4. Elements of Socialism a Text Book. New York: The Macmillan Company. Gambar disajikan oleh Levri Ardiansyah (2017).

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The Inductive Method for a Science of Administration
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Epilogue

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